

ARTICLE

**RESULTS OF ASSESSMENT OF THE COMPETITIVENESS
RANKING OF MONGOLIA'S TOURISM DESTINATION***Khishigdalai U.^{1*} and Bat-Erdene N.²*¹ School of Business, Mongolian University of Humanities, Ulaanbaatar, Mongolia² School of Engineer and Technology, Mongolian University of Life Science, Ulaanbaatar, Mongolia

ARTICLE INFO: Received: 13 Sep, 2018; Accepted: 25 Dec, 2018

Abstract: The research study aimed to develop the tourism destination competitiveness model in the Mongolian case. Based on comparative analysis of the previously developed and applied models in other countries and regions, the author developed a basic model to evaluate the competitiveness of Mongolia's tourist destinations. Mongolia's 11 main tourism destinations were evaluated by the destination competitiveness model with 6 groups, and 11 categories. The Grey relational analysis was used to estimate the competitiveness ranking of Mongolia's tourism destinations. The result of the research study showed that the Gobi, areas related to Chinggis Khan and Kharkhorin (or Karakorum) were the best destinations, in terms of competitiveness, and the Altai Tavan Bogd was listed as the least competitive destination in Mongolia.


Keywords: Model of destination competitiveness; ranking evaluation of destination competitiveness; Grey relational analysis;

INTRODUCTION

The success of tourism destinations in the world market is influenced by their relative competitiveness. Tourism destination competitiveness is becoming an area of growing interest amongst tourism researchers [1]. The contention is that destination competitiveness has "... tremendous ramifications for the tourism industry and is therefore of considerable interest to practitioners and policy makers" [2]. Condition of sustainable development of tourism will be created based on rational planning and destination management. The tourism industry has been paying increasingly

more attention to issues of competitiveness and development of destination. Mongolia has been implementing comprehensive policies and regulations on ways to develop tourism in the country since the establishment of the national touristy industry. For example; the government formulated general policy for tourism development in 1995, "Master plan for developing national tourism in Mongolia" in 1999, the State Great Khural of Mongolia approved the Regional Development Concept and National Development of Mongolia, and Master plan for developing tourism in

*corresponding author: Khishigdalai@humanities.mn

 <https://orcid.org/0000-0002-1450-3931>



The Author(s). 2018 Open access This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

Mongolia until 2015.

According to the well-known tourism competitiveness researchers Ritchie and Crouch (2000), a destination's competitiveness is a country's ability to create added values and to increase the national wealth by managing assets and processes, attractiveness, aggressiveness and proximity, and thereby integrating these relationships within an economic and social model that takes into account a destination's natural capital and its preservations for future generations [3]. Regarding the concept, it needs to evaluate its competitiveness, to compare levels of these developments, to define the current situation of destination development in order to process the management, the planning and the policies for developing tourism in the region. On the other hand, resource and destination of tourism become the key factor for improving circulation of tourism [4]. Therefore, the main factors for developing a sustainable or continuous tourism of Mongolia are the competitiveness, development and management of the destinations.

The tourism destinations of Mongolia are concentrated in only a few areas, which

has been creating environmental and ecological degradation. The main reason is the absence of integrated policies and planning and consequently, the unavailability of fundamental research materials. In order to address this challenge, the current situation should be defined and the destination competitiveness needs to be evaluated as well. It is also important to develop and create fundamental research materials for formulating development policies of the sector and also developing destinations. The other important element includes the planning and its integration with the policies of other sectors. Evaluating the competitiveness of tourism destination and implementing the tourism development policies will make it possible for Mongolia to compete with other countries around the world. Thus, the development of appropriate methodological framework to evaluate Mongolia's tourism destinations' competitiveness is quite a challenging task. The main goal of the research study: It aimed to develop appropriate methodology to evaluate the competitiveness ranking of tourism destinations in Mongolia.

MATERIALS AND METHODS

Materials: There are a number of different spatial concepts in tourism [5]. It includes: - Permanent residence areas - Transit station - Travel to destination in terms of tourism, "zorikh gazar" is the DESTINATION. Clare Gunn, who is an American researcher, has given following definitions of destination [5]. "Destination for tourists" is to be places focused services and exhibitions or attractions for spare time or recreation or entertainments of tourist". In developing their conceptual model of Tourism Destination Competitiveness (TDC), Crouch and Ritchie [1], build on Michael Porter's [6] well-known framework of the "Diamond Model of National Advantage". Competitiveness of tourism destination means to be more effective and command a

benefit position in the tourism market [7]. The ability of a destination to increase tourism expenditure, to attract increasingly many more numbers of visitors while providing them with a satisfying and memorable experience, and to do it in a profitable manner, while enhancing the well-being of the destination residents and preserving the natural capital of the destination for future generations [3]. Despite of the approach under which the destination competitiveness is seen, defining its concept is not the only difficult task under this topic: measuring competitiveness is as or even more complex. Firstly, because competitiveness in general (of a firm, a country or a destination) is both a relative as well as a multi-dimensional concept. Secondly, because tourism is an

industry which has a very particular nature, that involves the selling of “experiences” instead of tangible products, and which embraces different contexts, such as economic, social, political, etc. Because of these features, the evaluation of the competitiveness of tourism destinations becomes an multi-stakeholder process ensuing serious problems. Since there

many tourism products, books and surveys created in recent years, some researchers or scientists have been studying the influence of this determinant and the competitiveness of tourism destination. Table 1 shows the influence of these determinants and the competitiveness of tourism destination.

Table 1. Basic research of models destination competitiveness

Destination competitiveness studies for development of generic models or indices		
Author (Year)	Models	Focus of the model
Crouch, Ritchie (1993, 1995 [8], 1999 [1]); Ritchie, Crouch (1993, 2000 [2], 2003 [3])	Conceptual model of destination competitiveness	Comparative and competitive advantage (resources endowment and deployment)
Heath (2002, 2003) [9]	Sustainable destination competitiveness model	Emphasis on human-related factors
Yengesayi (2003) [10]	Tourism destination competitiveness and Attractiveness model	Perspectives from the supply side (competitiveness) and demand side (attractiveness)
Dwyer, Kim (2003, 2004); Kim, Dwyer (2003) [11]	Integrated model of destination competitiveness	Resources, management, tourism demand, situational condition
Gooroochurn, Sugiyarto (2005) [12]	Competitiveness monitor	8 indicators: price, economic and social impact, human resources, infrastructure, environment, technology, openness, and social development
World Economic Forum (2007,2008) [13]	Travel and tourism competitiveness index	Government-related policies; business environment and infrastructure; and endowed resources (human, cultural, and natural)

Based on a survey carried on the determinants and competitiveness of tourism destination, we have formulated a model of competitiveness of tourism destination in Mongolia (Figure 1). Based on the model, we have developed indicators (Table

2) for evaluation and assessment of the competitiveness of tourism destination in Mongolia. Specialists of the tourism sector have given expert assessment of the indicators and determinants of the model.

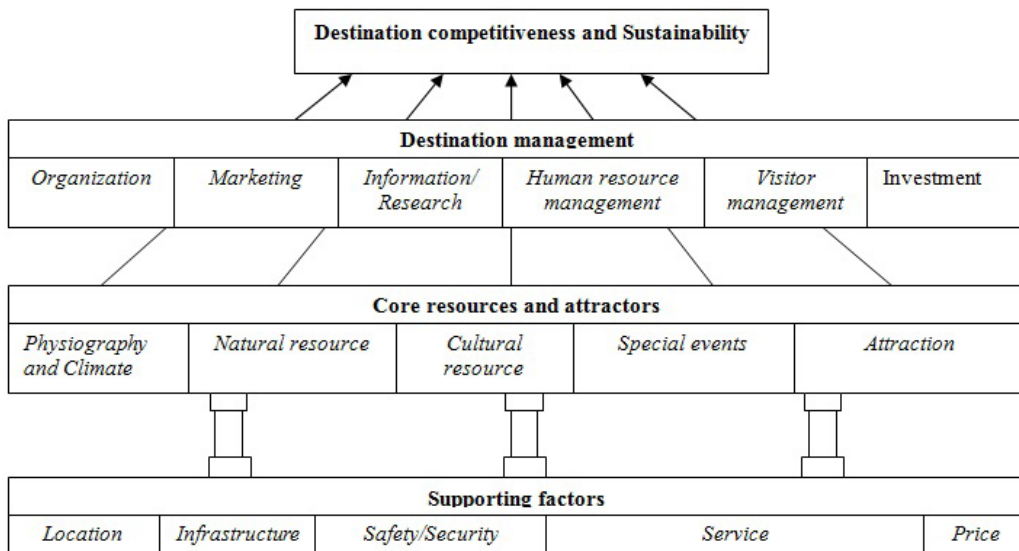


Figure 1. Model of the Mongolian tourism destination competitiveness

Table 2. Mongolian tourism destination competitiveness indicators

№	Theme	Competitiveness indicator	Definition
1	Tourism attraction	Natural attraction	Quantity of natural landscapes and attraction areas (Cave, tsonj, oysters, cliffs, craters, forests, lakes, rivers, ponds, oases and sand dunes etc)
		Cultural attraction	Numbers of historical and cultural sites (petroglyphs, deer stones, bright stones and the remains of the ruins of temples etc)
		Event	To organize based on any specific measures, such as interestingly festival, culinary arts, festivals and shows reflected ethnographic features, mountains and traditional rituals, animal farming and events of nomadic cultures as well as artisans.
		Other	unique buildings and towers, sports stadiums, parks and famous Square, the central square, museums, etc.
2	Achievability	Location	Distance from Ulaanbaatar (km)
		Road	To define how to percent of paved roads of total roads in order to reach the destination.
		Airplane	Numbers of airplane companies to reach the destination
3	Service	Hotel	Numbers of beds in hotels in the destination
		Camp	Numbers of beds in camp in the destination
		Information centers	Numbers of information centers in the destination
		Number of tour operation	Percent of tour operations to run out the travels in the destination

4	Price	Average fee of hotel	Average fee of standard rooms in hotels in the destination
		Average fee of camp	Average fee of gers in camp in the destination
		Beverage fee (camp)	Average fee of beverage (Coca cola) in camp in the destination
		Food price (camp)	Average fee of food in camp in the destination (main food)
		Average arrival rate fee (airplane)	Average fee of airplane tickets to the destination
		Average fee of tour operation	Average fee of tour operations to run out the travels in the destination
5	Tourist safety	Crime (theft, violence)	Tourists affected by crime (by recent one year)
		Communicable disease, SARS, etc	Cases of infectious disease (by recent one year)
		Accidents	To victim visitors in accidents (by recent one year)
6	Quality of environment and climate	Air quality	Indication of air quality of the destination
		Water quality and supply	Water quality and its supply issues in the destination
		Average temperature	Average temperature in July of the destination
		Day-long sunlight	Duration of sunlight in the destination (hour)

Case study areas: “Research Report of International Tourism-2002” [14], a study to identify the main tourism destinations of Mongolia most frequented by tourists, was financed by the Mongolian Tourism Association and Competiveness Initiative project in 2002, another study “Mongolian international tourism survey-2005” [15] was implemented with support from the United States Agency for International Development (USAID) and the “Economic Policy Reform & Competiveness project” in 2005 and “Base Research of Tourism” were implemented by the National Center of Tourism in 2012 [16].

1. Gorkhi-Terelj National Park
2. Khorgo-Terkhyn Tsagaan Lake National Park
3. Orkhon Value National Park
4. Khuvsgul National Park
5. Khentii province
6. Umnugovi province
7. Uvs lake Strictly protected area
8. Otgontenger Strictly protected area
9. Altai Tavan Bogd National Park

10. Dornod province

11. Dariganga protected areas

Methods: Approaches of quality in marketing, statistical business analysis and scientific cognitive analysis were used in the research work. Also, Grey Relational Analysis (GRA) was used to estimate the ranking of destinations’ competitiveness. The GRA analysis is based on a synthetic measure on the similarity of developing trend to measure relationship between determinants. The GRA required a small amount of information and the ranking did not have certain statistical distribution, as such the calculation was simple and focused on determining the ranking order [17]. There are five steps involved in the formation of grey correlation degree: Step 1: Find the maximum value and minimum value in the original sequence. Step 2: Generation of the grey correlation is followed by (a) larger-the-better model: the larger the desired objective the better, such as the index of total revenue in this paper:

$$x_i^*(k) = \frac{x_i^{(0)}(k) - \min_{\text{all}_i} x_i^{(0)}(k)}{\max_{\text{all}_i} x_i^{(0)}(k) - \min_{\text{all}_i} x_i^{(0)}(k)} \tag{1a}$$

$x_i^{(0)}(k)$ denotes normalized coefficient for hotel (0), variable (i) theme (k); (b) Smaller-the-better: the smaller the desired objective the better, such as the indicator of train station.

$$x_i^*(k) = \frac{\max_{\text{all}_i} x_i^{(0)}(k) - x_i^{(0)}(k)}{\max_{\text{all}_i} x_i^{(0)}(k) - \min_{\text{all}_i} x_i^{(0)}(k)} \tag{1b}$$

Then, we find the maximum value from those above coefficients and the maximum value is equal to 1.

Step 3: Calculate the absolute value between $x_0(k)$ and $x_i(k)$.

$$\Delta_{0i}(k) = |x_0(k) - x_i(k)| \tag{2}$$

Step 4: Calculate the Grey relational correlation.

Let X be the factor set, $x_0 \in X_0$ be the reference set, and $x_i \in X_i$ the comparative sequence. Then, the grey relational correlation coefficient of $x_0(k)$, $x_i(k)$ will be represented by the following [17].

$$r_k^0(x_0(k), x_i(k)) = \frac{\min_j \min_k |x_0(k) - x_i(k)| + \zeta \max_j \max_k |x_0(k) - x_j(k)|}{|x_0(k) - x_i(k)| + \zeta \max_j \max_k |x_0(k) - x_j(k)|} \tag{3}$$

Specifically, ζ (distinguishing coefficient) smaller the ζ then the distinguishing ability is higher (generally smaller than 0.5). $\zeta \in [0, \infty]$ generally has the value of $[0; 1]$. The

$$\Delta_{\min} = \min_{\forall j \in i} \min_{\forall k} \Delta_{0i}(k) = \min_{\forall j \in i} \min_{\forall k} |x_0 - x_k|$$

$$\Delta_{\max} = \max_{\forall j \in i} \max_{\forall k} \Delta_{0i}(k) = \max_{\forall j \in i} \max_{\forall k} |x_0 - x_k|$$

The major function of distinguishing relationship between background value and coefficient ζ is to adjust the comparison measured value.

Step 5: Calculate Grey relational correlation rank.

The definition of grey relational correlation as follows:

$$r_k^0(x_i, x_j) = \frac{1}{n_k} \sum_{k=1}^n r(x_i(k), x_j(k)) \tag{4}$$

Where $r_k^0(x_i, x_j)$ is the destination (0)'s theme composite index k , n_k is the number of variables in theme k .

RESULTS AND DISCUSSION

The competitiveness ranking of these 11 tourism destinations were made according to 6 groups and 24 sub-indicators, The data for each of the 24 sub-indicators of competitiveness, developed by the researcher, was compiled alongside corresponding ranks for each of the 5 levels of Grey relational analysis and finally the overall ranking of each indicator (Table 3) was calculated. For example, if the travel sights was ranked first, the point will be 11, but if it was ranked second, the point would be 10.

In addition to ranking, the following evaluation hierarchy was used to assess the overall competitiveness of the destination.

There are 6 indicators with 1-11 points and the minimum point is 6 and the maximum will be 66. In other words, evaluating competitiveness:

- Competiveness is good 47-66
- Competiveness is satisfactory 27-46
- Competiveness is poor 6-26.

When considered by 24 points, the highest level of competitiveness were Gobi, Chinggis Khan's home town and Kharkhorin. And the lowest level of competitiveness is Terkh, Otgontenger, Dornod aimag and Altai Tavan Bogd (Figure 2). Table 4 lists the top and bottom 3 in terms of overall competitiveness.

Table 3. Result of ranking evaluation

№	Destinations	Tourism attractions		Achievability		Services		Price		Safety/ Security		Environmental quality and climate		Total		competitiveness
		Ranking	Score	Ranking	Score	Ranking	Score	Ranking	Score	Ranking	Score	Ranking	Score	Ranking	Score	
1	Terej	XI	1	I	11	II	10	II	10	XI	1	XI	1	VI	34	satisfactory
2	Terkh	VIII	4	VIII	4	IV	8	VII	5	VIII	4	IX	3	VII	32	satisfactory
3	Kharkhorin	I	11	IV	8	I	11	IX	3	VII	5	VI	6	II	44	satisfactory
4	Khuvsgul	VII	5	V	7	III	9	IV	8	X	2	V	7	IV	38	satisfactory
5	Khentii	II	10	III	9	VII	5	V	7	VI	6	II	10	I	47	good
6	Gobi	III	9	II	10	V	7	XI	1	III	9	I	11	I	47	good
7	Uvs lake	V	7	VI	6	IX	3	VI	6	II	10	VIII	4	V	36	satisfactory
8	Otgontenger	IX	3	X	2	VI	6	VIII	4	V	7	IV	8	VIII	30	satisfactory
9	Altai Tavan Bogd	X	2	XI	1	VIII	4	X	2	I	11	VII	5	X	25	poor
10	Dornod	IV	8	VII	5	XI	1	III	9	IX	3	X	2	IX	28	satisfactory
11	Dariganga	VI	6	IX	3	X	2	I	11	IV	8	III	9	III	39	satisfactory

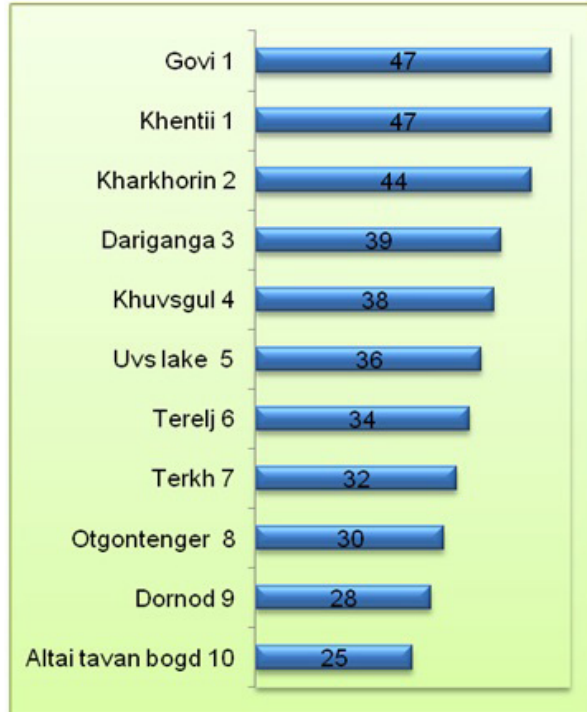


Figure 2. Ranking competitiveness

Table 4. Results of the Top 3 and Bottom 3 Ranked Destinations

№	Indicators	Top 3	Bottom 3
1	Tourism attractions	(1) Kharkhorin, (2) Khentii, (3) Gobi	(1) Terelj, (2) Altai Tavan Bogd, (3) Otgontenger
2	Achievability	(1) Terelj, (2) Govi, (3) Khentii	(1) Altai Tavan Bogd, (2) Otgontenger, (3) Dariganga
3	Services	(1) Kharkhorin, (2) Terelj, (3) Khuvsgul	(1) Dornod, (2) Dariganga, (3) Uvs lake
4	Price	(1) Dariganga, (2) Terelj, (3) Dornod	(1) Gobi, (2) Altai Tavan Bogd, (3) Kharkhorin
5	Safety/ Security	(1) Altai Tavan Bogd, (2) Uvs lake, (3) Gobi	(1) Terelj, (2) Khuvsgul, (3) Dornod
6	Environmental quality and climate	(1) Gobi, (2) Khentii, (3) Dariganga	(1) Terelj, (2) Dornod, (3) Terkh
	Overview	(1) Govi, (1) Khentii, (3) Kharkhorin	(1) Altai Tavan Bogd, (2) Dornod, (3) Otgontenger

These places were ranked in the following order as the result of the evaluation: Gobi, Chingis Khan's home town, Kharkhorin, Dariganga, Khuvsgul, Uvs Lake, Terelj, Terkh, Otgontenger, step of Dornod and Altai Tavan Bogd. Subsequently, following recommendations were developed to improve the competitiveness and tourism services at the destinations regarding the advantages and disadvantages of the competitiveness and other related factors: - At the first places, Gobi and Chingis Khan's home town have following advantages such as favourable environment and climatic conditions, good development of road and related infrastructure, various attractions and resources of tourism. However, areas that need attention are the stabilization of the price of service organizations at the Gobi destinations, increasing of the capacities and opportunities of service organizations at Chingis Khan's home town - In Kharkhorin. They all have better opportunities for improved services and attractions for tourism, but there

CONCLUSIONS

The result of the study led to the development of evaluation methodological model of tourism destination competitiveness in Mongolia. The evaluation model consists of six main indicators and 24 sub-indicators including such indicators as tourism attraction, weather and climate conditions, environment-nature, safety, price, accessibility of tourism destination etc. Based on the developed model, the evaluation ranking of the following eleven main tourism destinations in Mongolia, such as the Gorkhi-Terelj National Park, Khorgo-Terkhyn Tsagaan Lake National Park, Orkhon Valley National Park, Khuvsgul National Park, Khan Khentii Strictly protected area,

still is room for improvement in terms of price of service organizations and safety. Similarly, capacity of service organizations in the protected area of Dariganga, improved safety for tourists in Khuvsgul and better infrastructure and capacities of service organizations of tourism in Uvs lake area are important. Other challenges include the tackling of pollution of environment-nature sources and making more attractive various events being organized at the Gorkhi-Terelj National Park and the Khorgo-Terkhyn Tsagaan Lake. The above studies also revealed that the infrastructure, capacities of service organizations and their prices at strictly protected area of Otgontenger must be given priority. In addition to this, investment must be made in new service organizations and safety of tourists in the Dornod area, and likewise, there is a need to improve infrastructure, build up the capacities of service organizations and make their prices rational at the Altai Tavan Bogd National Park.

Umnugovi aimag and Uvs lake, Otgontenger strictly protected area, Altai Tavan Bogd National Park, and protected areas of Dornod and Dariganga were made. Grey relational analysis was used in evaluating and assessing the tourism destination competitiveness.

According to the evaluation, the tourism destinations were ranked in the following order: the Gobi, the birthplace of Chinggis Khan, Kharkhorin, Dariganga, Huvsgul, Uvs Nuur, Terelj, Terkh, Otgontenger, Dornod, and Altai Tavan Bogd. The result of the ranking shows that there is a need to improve tourism competitiveness in each tourism destination.

REFERENCES

- [1] Crouch, G. I., & Ritchie, J. R. B., (1999), Tourism, competitiveness and social prosperity, *Journal of Business Research*, 44, pp. 137–152.
- [2] Ritchie & Crouch, (2000), The competitive destination: A sustainability perspective, *Tourism Management*, 21(1), pp. 1–7.
- [3] Geoffrery, I., Crouch & J. R., Brent Ritchie, (2003), A model of destination competitiveness/ sustainability: Brazilian perspectives.
- [4] Navchaa, T., (2010), *Tourism study*, Ulaanbaatar, HIS Publishing.
- [5] Gunn, C., (1997), *Vacationscape: Developing Tourist Areas* (3th edition), Washington DC.
- [6] Porter, M., (1990). *The Competitive Advantage of Nations*, New York, The Free Press.
- [7] Charles R. Goeldner, and J. R. Brent Ritchie, (2011), “Tourism” Principles, Practices, Philosophies (12th edition), USA.
- [8] Geoffrey I. Crouch, and J. R. Brent Ritchie, (1995), Destination competitiveness and the role of the tourism enterprise. *Proceedings of the Fourth Annual Business Congress*, Istanbul, Turkey, July 13-16.
- [9] Heath. E., (2002), Towards a model to enhance Africa’s sustainable tourism competitiveness, *Journal of public administration*.
- [10] Sebastian Vengesayi, (2003), A conceptual model of tourism destination competitiveness and attractiveness, ANZMAC-2003 Conference proceedings Adelaide 1-3., December.
- [11] Larry Dwyer, Chulwon Kim., (2003), Destination competitiveness: A model and Determinants, *Current Issues in Tourism*.
- [12] Gooroochurn, Sugiyarto., (2005), Competitiveness indicators in the travel and tourism industry, *Tourism Economics*.
- [13] World Economic Forum, (2008), *Tourism competitiveness – 2008*.
- [14] Tourism Association of Mongolia, Competiveness Initiative Project, (2003), *Research Report of International Toursim - 2002*.
- [15] Economic Policy Reform & Competiveness project, (2005), *Mongolian international tourism survey - 2005*.
- [16] National Center of Tourism, (2012), *Base Research of Tourism - 2012*.
- [17] Tzeng, G. H., & Hu, Y. C., (1996), The section of bus system operation and service performance indicators - application grey relation analysis, *Journal of Chinese Fuzzy Systems Association*.