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Prioritizing tourist type in Nepal: Application of the Saaty
Method (MCDM)

Abstract of Bachelor Thesis

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Abstract

The purpose of this thesis is to prioritize the types of tourists using Multi-criteria decision making approach (Saaty Method) by analysing major selected opportunity for the development of Nepal through tourism sector. This thesis provides all general information for using Analytic Hierarchy Process (AHP) for making a decision on unidimensional scale.

Multiple pairwise comparison has been made between the criteria and alternatives. The scale of ranking to prioritize and a degree of consistency for handling the error terms has been measured for each pairwise comparison as proposed by Thomas L. Saaty on 1970s. After calculating the average of all utility from the comparisons, the total weights for all alternative were calculated. Among the four alternatives, adventure tourist got the highest priority whereas religious tourist got the lowest priority.

Keywords: Nepal, tourism sector, Saaty method, pairwise comparison, normalization.

Abstrakt

Tato práce má za úkol určit prioritní skupiny turistů a jejich přínos pro rozvoj Nepálu prostřednictvím cestovního ruchu. Přínos turistů se určuje na základě analýzy více kritérií za pomoci srovnávací metody (Saaty). V této práci jsou uvedeny veškeré obecné informace pro použití Analytic Hierarchy Process (AHP) pro určení jednotného měřítka.

Mezi všemi možnostmi a kritérii bylo provedeno několik párových srovnání. Pro stanovení pořadí důležitosti daných priorit a stupně jednotnosti pro zpracování chybových podmínek byla použita metoda srovnání podle Thomas L. Saatyho z let 1970. Po vypočítání průměrného přínosu bylo vypočteno pořadí všech zvolených alternativ. Na první pozici se tak dostal turista cestující za dobrodružstvím, zatímco turista cestující za náboženstvím je nejmenším přínosem pro cestovní ruch.

Klíčová slova: Nepál, turistický ruch, metoda Saaty, párové srovnávání, normalizace.

Introduction

After a decade of civil war (1996 to 2006), led by Maoist took more than 15000 lives and many other casualties, was ended to draft a constitution to be written by representatives of the people. The economy of Nepal has already become a catastrophe after the powerful earthquake stroked Nepal on April 20th 2015 and furthermore the economic blockade from the southern border of Nepal to India has put obstacles in the growth of economy already. Nepal government must allocate all the funds and resources for the economic growth of Nepal. However, being a least developed country, Nepal mightn't have enough resources and budget to promote every sector of the country. In this situation, prioritization of government activities seems to be relevant. This thesis mainly focus on the prioritization of tourist types in Nepal following the very famous mulita-criteria decision making tool known as Analytic Hierarchy Process(AHP) or Saaty Method. Thomas Saaty proposed AHP which is based on building hierarchy of decision categorised as alternatives and criteria using multiple comparison between each pair of alternatives or criteria represented in a matrix form (Saaty, 1980).

Goals

The main goal of this thesis is to prioritize the types of tourist in Nepal for the economic growth of Nepal using AHP or Saaty method.

Partial goals of the thesis are as follows:

- to make literature review of tourism in Nepal,
- to make literature review of Multi-criteria decision making,
- to understand the role and potential of tourism in Nepal through swot analysis,
- to describe the role of tourist type and respective opportunities,
- and to calculate the weights for respective tourist types.

Challenges

There are different methods of decision making methods existing nowadays. The challenges of multi criteria decision making method is to factor psychological time into a decision in order to predict and deal the problems successfully through planning, judgements etc. Many efforts are being made and new techniques are being developed in this decision process. This thesis will be used as a base to further

thesis writings. The next step will be related on how government will implement and work on this prioritizing method. Further, the study will focus on the marketing of tourism sector in Nepal by taking most efficient type of tourist to create a regular flow of tourist in Nepal.

Methodology

For this study, online monkey survey tool and Microsoft Excel programme has been used. Pairwise comparison of the criterion and alternatives was analysed in Microsoft excel programme and at last Saaty method (AHP) was used to interpret and calculate the respective weights from the data. Conclusion was made based on the synthesis of theoretical knowledge and results of practical part.

Results

The AHP method that was used in this thesis has shown the respective priority for the alternatives, i.e. Adventure > Business and Professionals > Backpackers and gap year travelling > Religious activities with the score of 0.39, 0.26, 0.20 and 0.15 respectively. After analysing the results, we can say that adventure tourist plays the most significant role, backpackers and gap year travelling tourist along with business and professionals plays moderate role and religious activities tourist plays least important role in the economic growth and development of Nepal. The decision makers may work on given priorities and on doing so development process might be enhanced despite of limited resources and budget.

Conclusion

This thesis proposes the application of AHP method or Saaty method for the prioritization of types of tourist in Nepal. The important part of this decision making application is how the decision makers makes the hierarchy of alternatives and criteria for decision making problems in real life. To maintain the standards and under limited resources available, decisions are supposed to be logical. Each alternative does have their own strength and based on our goals, we must implement that alternative which is more effective and efficient for the success of individuals or a company.

References

1. Malczewski, J., 1999. GIS and Multicriteria Decision Analysis. New York: J. Wiley & Sons.
2. Saaty T.L & vargas L.G, 2000. Models, Concepts and applications of AHP. Boston: Kluwer Academic Publishers.
3. Saaty T.L & vargas L.G, 2012. Models, methods, concepts & applications of the analytic hierarchy process. 2nd ed. New York: Springer.
4. Saaty, T. L., 1977. A scaling method for priorities in hierarchical structures. Journal of Mathematical Psychology, Volume 15, pp. 234-281.
5. Saaty, T. L., 1980. The Analytica Hierarchy Process. New York: McGraw-Hill International.
6. Saaty, T. L., 1994. Fundamentals of decision making and prority theory with the analytic hierarchy process. Pittsburgh, PA: RWS Publications.