Opinion
Volume 11:9, 2022

Journal of Telecommunication System and Management

ISSN: 2167-0919 Open Access

Decision Support for Rural Development with the Analytic Hierarchy Process

Joan Muss*

Department of Engineering, University of Dudley, Dudley, UK

Introduction

A decision model that prioritizes activities that support the development of a rural area in Chile is presented in this paper and is based on community preferences. The region's local government has tried unsuccessfully for many years to encourage economic growth. The incentive programs that have been offered have goals that are both complicated and contradictory. Community preferences, incentive programs, and the stated objectives frequently diverge. In a situation involving multi-attribute decision-making, like this one, it is challenging to determine the most effective actions developed the Analytical Hierarchy Process (AHP), which enables factors to be arranged in a hierarchical structure and prioritized in order to make trade-offs between decision criteria and alternatives in order to determine the most effective policies or actions for achieving the desired growth in the region.

Description

A decision model that prioritizes activities that support the development of a rural area in Chile is presented in this paper and is based on community preferences. The region's local government has tried unsuccessfully for many years to encourage economic growth. The incentive programs that have been offered have goals that are both complicated and contradictory. Frequently, irregularities exist between local area inclinations, motivating force programs, and the expressed objectives. In a situation involving multi-attribute decision-making, like this one, it is challenging to determine the most effective acti. Saaty developed the Analytical Hierarchy Process (AHP), which enables factors to be arranged in a hierarchical structure and prioritized in order to make trade-offs between decision criteria and alternatives in order to determine the most effective policies or actions for achieving the desired growth in the region. In addition, measuring community preferences is challenging and entails multi-attribute decision-making.

The determination of the appropriate weights for the various attributes is the most important aspect of this decision-making process. For multiple attribute decision-making, Sati's Analytical Hierarchy Process (AHP) is a versatile and tested decision support system. It provides decision makers with the ability to organize and evaluate the relative importance of their goals, alternatives, and/or solutions by incorporating both subjective and tangible data. The AHP is used to calculate weights that show how each proposed development strategy affects the community. The opinions demonstrate a wide range of preferences, much of which is due to the varying physical and financial circumstances of the experts involved. The case is described in Section 2.The results of the pairwise comparisons and the application of AHP to the problem are presented in Section 3.We looked at how to use the information we got from the hierarchical decision structure in the best way in Section 4.The conclusions are presented in Section 5.Harbor activities, as well as industrial, agricultural, fishing, tourism, and commercial services, are pursued in the region. In pursuing any of these activities, numerous complex factors and goals typically conflict or interfere. Due to the restrictions that must be implemented, making a profit in some sectors leads to the decline of others.).

The question at hand is which of the activities would have the greatest impact on the community in the future and contribute the most to the growth of the region. Identifying the area's factors and sectors was the first step in the research. In the early stages of the work, local decision-makers, experts, and government representatives from the region were questioned about the activities they believed would have the greatest impact on the region's progress. Consequently, numerous factors were suggested. The most important effects of carrying out particular activities were determined in the second step. The experts indicated their preferences in relation to their particular fields of knowledge and expertise. The final step consisted of assigning weights to the measured characteristics of each activity in order to rank the proposed development activities that had the potential to improve the local environment. We were able to achieve a comprehensive outcome by integrating the diverse opinions and preferences of the community's actors through the application of AHP to the problem situation: how the activities are ranked [1-5].

Conclusion

A hierarchical structure was created with the overarching objective of "promoting regional development" in mind. A three level hierarchic design in view of the variables determined by the specialists was formed shows the fundamental construction where the levels address the elements as demonstrated beneath. After the fundamental framework was established, the effort was directed toward assembling a group of experts. This required meetings and interviews with representatives of farmers, workers, and businesses; managers, engineers, representatives from businesses, tourism, and commerce; representatives from education and health; government, marine, and harbor officials, among othersIn the end, an expert panel of representatives from each sector of the study was put together. Representatives from the local Chamber of Commerce, the county Planning Commission, the Industrial, Tourism, and Harbour Committee, the local head of Education and Schools, and other residents were also included because local government and business leaders expressed an interest in participating in the ranking process.

References

1. Stieglitz, Stefan, Deborah Bunker, Milad Mirbabaie and Christian. "Sense-making in social media during extreme events" *J Telecommun Syst Manage* 26 (2018): 4-15.
2. Feijóo, Claudio, José Luis Gomez-Barroso and Sergio Ramos. "Techno-economic implications of the mass-market uptake of mobile data services: Requirements for next generation mobile networks." *J Telecommun Syst Manage* 33 (2016): 600-612
3. Panwar, Nisha, Shantanu Sharma and Awadhesh Kumar Singh. "A survey on 5G: The next generation of mobile communication." *J Telecommun Syst Manage* 18 (2016): 64-84.
4. J. S. Metcalfe. "Technology systems and technology policy in an evolutionary framework." *Cambridge J Econ* 19 (1995): 25–46.

***Address for Correspondence:** Joan Muss, Department of Engineering, University of Dudley, Dudley, UK, E-mail: muss871@edu.in*

Date of Submission: 05 September, 2022, Manuscript No. jtsm-22-82561; **Editor assigned:** 06 September, 2022, PreQC No. P-82561; **Reviewed:** 22 September, 2022, QC No. Q-82561; **Revised:** 24 September, 2022, Manuscript No. R-82561; **Published:** 29 September, 2022, DOI: 10.37421- 2167-0919.2022.11.339

5. Lew, Susie Q. and Neal Sikka. "Operationalizing telehealth for home dialysis patients in the United States." *J Telecommun Syst Manage* 74 (2019): 95-100.

How to cite this article: Muss, Joan. "Decision Support for Rural Development with the Analytic Hierarchy Process." J Telecommun Syst Manage 11 (2022): 339.