

Contractor Selection by Using Analytical Network Process

Authors : Badr A. Al-Jehani

Abstract : Nowadays, contractor selection is a critical activity of the project owner. Selecting the right contractor is essential to the project manager for the success of the project, and this can happen by using the proper selecting method. Traditionally, the contractor is being selected based on his offered bid price. This approach focuses only on the price factor and forgetting other essential factors for the success of the project. In this research paper, the Analytic Network Process (ANP) method is used as a decision tool model to select the most appropriate contractor. This decision-making method can help the clients who work in the construction industry to identify contractors who are capable of delivering satisfactory outcomes. Moreover, this research paper provides a case study of selecting the proper contractor among three contractors by using ANP method. The case study identifies and computes the relative weight of the eight criteria and eleven sub-criteria using a questionnaire.

Keywords : contractor selection, project management, decision-making, bidding

Conference Title : ICODMDA 2023 : International Conference on Operational Decision Making and Decision Analysis

Conference Location : London, United Kingdom

Conference Dates : September 18-19, 2023