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EVALUATION OF MANAGEMENT PERFORMANCE QUALITY FOR URBAN WATER ENVIRONMENT TREATMENT PROJECTS

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Abstract

The quality and efficiency for urban water environment treatment projects plays an important role for social and economic sustainable development of urban. Considering the uncertainty and complexity and the fuzziness of human's thinking in urban water environment treatment projects, this study established evaluation method for quality management performance under Pythagorean fuzzy environment. Firstly, the weight vector is obtained using Pythagorean fuzzy entropy. Second, to measure the evaluation result in terms of score, a transfer equation used to transform the Pythagorean fuzzy number to performance evaluation score is proposed. Third, a quality management performance evaluation method combining Pythagorean fuzzy set and TOPSIS method is established. Finally, applying the method to a real situation of quality management activities in the construction phase of urban water environment treatment project, the performance results is C, which shows the feasibility and applicability of the presented approach.

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