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An Integrated MCDM Model for Occupational Safety Specialist Selection

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Abstract

For businesses in the public and private sectors, the selection process of occupational safety specialist is critical since these employees identify and prevent work-related hazards. In the field of human resource management, using an effective and accurate model for the selection of these employees is especially valuable. In this study, the occupational safety specialist problem is considered for a Mutual Health and Safety Unit. The selection is made among five candidates who pass pre-selection process. An integrated multi-criteria decision making model based on Benefits, Opportunities, Costs and Risks (BOCR) criteria has been developed for this study. AHP is used to determine the weights of selection criteria and COPRAS is used to select the most pertinent personnel in correlation the selection criteria. To determine BOCR priorities a five-point scale and for other pairwise comparisons Saaty's 1-9 scale are used. The effectiveness of the proposed model is demonstrated in a real application.

Keywords: AHP, COPRAS, multi criteria decision making (MCDM), occupational safety specialist, personnel selection

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