

عنوان مقاله:

APPLYING BSC-DEA MODEL TO PERFORMANCE EVALUATION OF INDUSTRIAL COOPERATIVES: AN APPLICATION OF FUZZY INFERENCE SYSTEM

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خلاصه مقاله:

Evaluating indicators such as productivity and efficiency, make managers aware at various levels of the strengths and weaknesses of the organization. In today's business environment, organizations try to improve their efficiency in order to have more power in the global competition. The present paper presents an integrated fuzzy approach for the efficiency evaluation of industrial co-operatives. This method consists of three different techniques: (1) identify important evaluation criteria based on Balanced Scorecard (BSC) According to the previous literature review and expert preference ; (2) apply fuzzy inference system (FIS) to eliminate unsuitable criterion; and, (3) develop data envelopment analysis (DEA) approach for the final evaluation. Among the indicators The capacity of machines and production to capacity ratio determined as the input parameters and annual profits, customer satisfaction and continuous improvement of productivity were considered as the output of the proposed DEA model. Finally, an actual industrial application is presented to demonstrate the proposed method. By transforming the linguistic variables to quantitative numbers by fuzzy numbers, the DEA model was formed and four units of the fifteen cooperatives were identified as efficient units

کلمات کلیدی:

Data envelopment analysis (DEA), Balanced Scorecard (BSC), Fuzzy inference system (FIS), Performance evaluation, Industrial co-operatives

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