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EVALUATING PERFORMANCE OF ACCOUNTING INFORMATION SYSTEMS USING A FUZZY LOGIC APPROACH

Abstract:

The study constructs an approach based on the fuzzy logic approach (analytic hierarchy process (AHP) and analytic network process (ANP)) and balanced scorecard (BSC) for evaluating (AISs) performance in the government financial management information system (GFMIS) in Jordan. The (BSC) concept is applied to define the (AHP) and (ANP) with four major perspectives (i.e. financial, customer, internal business process, and learning and growth), and key performance indicators (KPIs) are selected for each perspective. A fuzzy logic approach is then proposed in order to tolerate vagueness and ambiguity of information. A fuzzy logic approach (AISs) is finally constructed to facilitate the solving process. The results provide guidance to (AISs) in the (GFMIS) in Jordan regarding strategies for improving (AISs) performance. The constructed approach is suggested to be a good tool for solving other multiple-criteria decision-making problems.

Keywords:

Accounting Information Systems (AISs), the Fuzzy Logic Approach

JEL Classification: M41, E11, M49