OVERVIEW OF CONSENSUS-BASED GROUP DECISION MAKING MODELING

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ABSTRACT

In a democratic sphere, making decisions involving the allocation of resources call for decision makers to make compromises to come to some common accord. Traditional group decision making, however, is based on majority rule (e.g. *Robert's Rule of Order*). The majority rule can be unfair if the viewpoints of the minority are not considered. The ideal group decision model is one in which the decision, that is arrived at, is sustainable over a period of time. The alternative to traditional group decision making is consensus decision making. This presentation reviews various approaches proposed for the problem of apportioning a finite resource among a number of involved parties and explains the discrepancy found in real situations between the theoretical consensus and the actual final decision arrived at by the decision makers. Among the approaches proposed for this problem is how to compute consensus solution based on bounded rationality. The results from these studies are illustrated using data from real case studies.

Keywords: Decision making, Group decisions, Mathematical programming.