

HOMOGENEITY AND CHOICE AGGREGATION IN THE ANALYTIC HIERARCHY PROCESS

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Summary: In this paper, we pay attention to a particular dilemma of group decision-making. On one hand the AHP is said to be based on the homogeneity of judgments and that choice aggregation – via the geometric mean – should be used only if the input judgments are homogeneous. On the other hand examples of the use of AHP are found for cases where the input judgments were heterogeneous as measured by the Compatibility Index. The need for multi-stakeholder group decision-making – involving high heterogeneity - gives additional reason for re-evaluation of a homogeneity requirement in the AHP. Homogeneity as AHP fundamental, different ways of measuring Homogeneity and the problems of using debate and consensus to harmonize judgments are discussed. No satisfactory (unique) aggregation rule exists for heterogeneous inputs, neither in the Social Choice nor the Subjective Expected Utility frameworks, and the question is asked whether this also holds for the AHP. No solution is suggested – this is indicated as an open area for future research.