

Using Analytic Hierarchy Process as a Decision-Making Tool in Project Portfolio Management

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Abstract : Project Portfolio Management (PPM) is an essential component of an organisation's strategic procedures, which requires attention of several factors to envisage a range of long-term outcomes to support strategic project portfolio decisions. To evaluate overall efficiency at the portfolio level, it is essential to identify the functionality of specific projects as well as to aggregate those findings in a mathematically meaningful manner that indicates the strategic significance of the associated projects at a number of levels of abstraction. PPM success is directly associated with the quality of decisions made and poor judgment increases portfolio costs. Hence, various Multi-Criteria Decision Making (MCDM) techniques have been designed and employed to support the decision-making functions. This paper reviews possible option to improve the decision-making outcomes in the organisational portfolio management processes using the Analytic Hierarchy Process (AHP) both from academic and practical perspectives and will examine the usability, certainty and quality of the technique. The results of the study will also provide insight into the technical risk associated with current decision-making model to underpin initiative tracking and strategic portfolio management.

Keywords : analytic hierarchy process, decision support systems, multi-criteria decision making, project portfolio management

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