Project Management Software Selection Using Analytical Hierarchy Process

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Abstract

This paper seeks to explore how considerations of analytical hierarchy process (AHP) can aid management and administration of multinational organizations in solving multiple attribute decision-making problems. The focus of the paper is project management software selection involving a large number of variables and constraints.

Informed decision-making is vital for the success of enterprises. The Analytic Hierarchy Process (AHP) first proposed by Thomas L. Saaty in 1977 can be utilized effectively as a decision making tool and has been applied to a wide range of areas including Information Technology, Health Care Management, Supply Chain Management, Public administration, etc. With the use of AHP it is possible to give a problem that is qualitative in nature a pseudo-quantitative structure. This structure then can be used to arrive at decisions by expressing preferences for one attribute over another, and testing whether the preferences are consistent.

This paper utilizes AHP for project management software selection, since studies focusing in this area are limited in the literature. With this motivation the paper structures the available data turning them into meaningful information to be used for project management software selection problem. The collected data consists of a number of variables, objectives, quantitative, and conflicting in nature. The study predominantly focuses of the literature review of AHP and proposes an approach to the use of AHP for selecting project management software.

Keywords: Analytical Hierarchy Process, AHP, project management, project management software, decision-making, Analytical hierarchy risk.