Abstract

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AN AHP, ANP DECISION SUPPORT APPROACH FOR THE PRIORITIZATION and SelectION OF "RESTORATION" and "IMPROVEMENT" PROJECTS WITHIN AN INDUSTRIAL ENVIRONMENT

In industry, it is usually a hard task to convince the decision takers of an organization to invest in "restoration" "improvement" projects within: their infrastructure their methods of function. But the fact is, ceasing to perform "restoration" "improvement" projects, is like a patient who stops taking his/her medication, a direct way of slow suicide. Even if the managers are convinced with this fact, they face the difficulty of Selection deferral of projects followed by the difficulty of deciding on the amounts and the proportions of expenditures on these projects. To the best of the author's knowledge, this problem has never been discussed in literature. This paper proposes a solution approach through the implementation of the AHP / ANP to help the decision taker, compose an objective decision on: the Selection of and the expenditure amounts on "restoration" and "improvements" projects. The Hierarchy and the Network are built based on the relevant criteria as deduced from actuality in industry. The judgments should be conducted once a year, and therefore the user gets a measurable output of the organization's interest in realizing the projects under consideration. One major characteristic of the proposed approach is that it takes in consideration the surrounding conditions through the users judgments and therefore evolves with the organization. The implementation of this approach is expected to preserve vast investments from deterioration collapse, guarantees continuous improvements to take place and as importantly prevents subjective conflicts over requirements of expenditures.
Keywords: Industrial engineering, Decision support, Selection, Prioritization, "Restoration" and "Improvement" projects.