A Proposed Fuzzy based Framework for Calculating Success Metrics of Agile Software Projects

Abstract

Agile development methodologies are considered the most important guarantor for the success of software development project as they depend on the best practices in the development process rather than on the theatrical concepts. But, because of the unclear and ambiguous indicators within agility evaluation, most metrics are described in a form of human-like language by linguistic terms which are described by ambiguity and multi-possibility, so that such metrics cannot be effectively handled the conventional evaluation approaches. However, fuzzy logic provides useful techniques for dealing with decisions in such environments which contain imprecise and vague values. Accordingly, using of fuzzy logic techniques will be a good choice. Thus, this paper proposes a framework for calculating Success Metrics (SM) of agile software projects based on fuzzy logic to address the ambiguity in agility assessment. The paper presents the details of the proposed framework and an illustrative example.


Index Terms

Computer Science
Fuzzy Systems

Keywords

Agile Software Development, Effort Estimation, Story Points, Fuzzy Logic, Success Metrics