The Making of Web Based Software Cost Estimation with COCOMO II Algorithm (Case Study at CV. Dafidea Technocraft).

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ABSTRACT

The passage discusses the importance of cost, time, and workforce estimation in software development, highlighting common challenges like over-estimates and under-estimates. It mentions that traditional estimation methods are less effective in 2022 due to developments in partnerships, projects, and workforce expansion. To improve cost estimation accuracy, the text mentions using the COCOMO II algorithm (Constructive Cost Model II) and optimizing it with Fuzzy logic. The research aims to create a cost estimation system for software development using COCOMO II and Fuzzy logic, examining the impact of Fuzzy logic on COCOMO II estimation accuracy. The results show that COCOMO II can be implemented in web-based systems, but initial estimates for Projects X and Y were significantly above the acceptable MAPE limit of 50%. However, adding Fuzzy logic improved accuracy, reducing the estimate for Project X by 10.66% from 251.31% to 240.65%, and for Project Y by 5.83% from 173.46% to 167.63%.

Key words: cocomo ii, fuzzy logic, mape, project cost estimation