

ABSTRACT

Directorate X reveals that 75% of application development projects undertaken between 2020-2023 were considered to be overscheduled. Field observations revealed that insufficiently careful planning and unclear feasibility standards were identified as the main factors leading to project failure. The ABC application development project, which was the most overscheduled project ever undertaken by Directorate X, faced challenges in adhering to project timelines, necessitating a comprehensive feasibility evaluation. Traditional project acceptance by Directorate X lacked a structured feasibility assessment, impacting overall project execution and resource allocation. This study aims to design a feasibility model for the ABC application development project using a dynamic systems approach based on TELOS criteria to support strategic decision-making. The research employs applied research methods, focusing on the practical application of dynamic systems modeling. The model optimizes project execution by controlling variables related to the project's triple constraint: time (adding time reserves), cost (increasing team size), and quality (increasing quality control frequency). However, single-variable optimization proved insufficient, whereas integrating all aspects of the triple constraint yielded a more favorable feasibility score. This holistic approach enhances decision-making accuracy regarding project acceptance and execution. The developed model provides a robust framework for evaluating project feasibility and offers a predictive tool to identify critical project phases, enabling proactive measures to mitigate potential delays and optimize project outcomes. This model can serve as a valuable reference for future projects, ensuring alignment with organizational goals and improving overall project management efficiency.