

**RANKING AND EVALUATING OF CRITICAL SUCCESS FACTORS OF ERP
ENHANCEMENT: A FUZZY AHP APPROACH**

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.



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ABSTRACT

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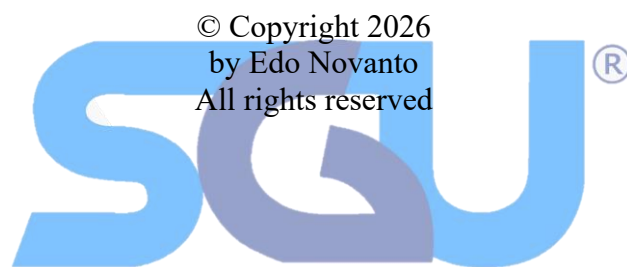
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Enterprise Resource Planning (ERP) enhancement initiatives are increasingly complex and require systematic evaluation to ensure alignment with organizational objectives and value realization. This study aims to identify, prioritize, and validate the critical success factors influencing ERP enhancement by integrating the Fuzzy Analytical Hierarchy Process (FAHP) with the ITIL 4 framework. A structured literature review was conducted to identify relevant evaluation factors, which were then assessed through expert judgment that converted into triangular fuzzy numbers. FAHP was applied to compute factor weights and rankings under uncertainty, while ITIL 4 provided a service-oriented perspective for interpreting the results. The findings indicate that Strategic Alignment is the most influential factor, accounting for nearly half of the overall importance, followed by People and Change, Project Execution, and Technical Support. The results were further validated through Likert-scale questionnaires and semi-structured interviews with ERP experts from multiple industries. The convergence of quantitative and qualitative findings demonstrates the robustness and practical relevance of the proposed framework. This study contributes both theoretically and practically by offering a structured decision-support model to guide organizations in prioritizing ERP enhancement initiatives and achieving sustained business value.

Keywords: Enterprise Resource Planning (ERP); Fuzzy Analytical Hierarchy Process (FAHP); ITIL 4; ERP Enhancement; Decision Support Framework.

Edo Novanto



DEDICATION

I dedicate this works for all organizations in Indonesia that utilize ERP systems.



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