

**IT PROJECT EVALUATION FOR OPTIMIZING ENTERPRISE ARCHITECTURE  
USING MULTI CRITERIA DECISION SUPPORT METHODS (MCDM)**

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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

### IT PROJECT EVALUATION FOR OPTIMIZING ENTERPRISE ARCHITECTURE USING MULTI-CRITERIA DECISION SUPPORT METHODS (MCDM)

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Since 2012, Indonesia Deposit Insurance Corporation (IDIC) already has had IT Blueprint. After 5 years implementations, in 2017 replaced by the new document named Enterprise Architecture. The lesson learned from previous IT Blueprint after implementation is there are many project or milestone were failed to be done with execution rate only 83% from total of initiated programs (Group Sistem Informasi of IDIC, 2017). The major factor is when IT Project are proposed with any consideration there is no certain parameter why this project being prioritized and also when evaluation managed used strategic assessment parameters according to the organization's strategic plan. Often assessments in IT project proposal only use two technical parameters, namely business benefits and ease of execution. Meanwhile when the project is approved by top level management, the assessment factors other than technical are often more likely to use obedience approaches between IT projects and institutional strategic plans and programs. The study will be gained benefits for optimizing enterprise architecture (EA) project by analyzing which the program is most important for organization to execute by develop new method of evaluating IT project through aligning with vision and mission of organization that always dynamic and changing. Balanced Score Card (BSC) for gathering the candidate of criteria's from IT Stakeholders. Hybrid technique proposed by combining between Fuzzy AHP (Analytical Hierarchy Process) and Fuzzy TOPSIS (Technique for Order Preference by Similarity to Ideal Solution) to determine of decision making by sort of all criteria's proposed from the most important to less. Fuzzy AHP is used to make an examination of prospective criteria used in compiling a priority list of

projects. Whereas Fuzzy TOPSIS is used to determine the ideal solution and ranking from alternative decisions on IT projects to be evaluated.

*Keywords: IT Blueprint, Enterprise Architecture (EA), Balanced Scorecard (BSC), Fuzzy AHP, Fuzzy TOPSIS.*



## **DEDICATION**

I dedicate this works for the emendation of my office



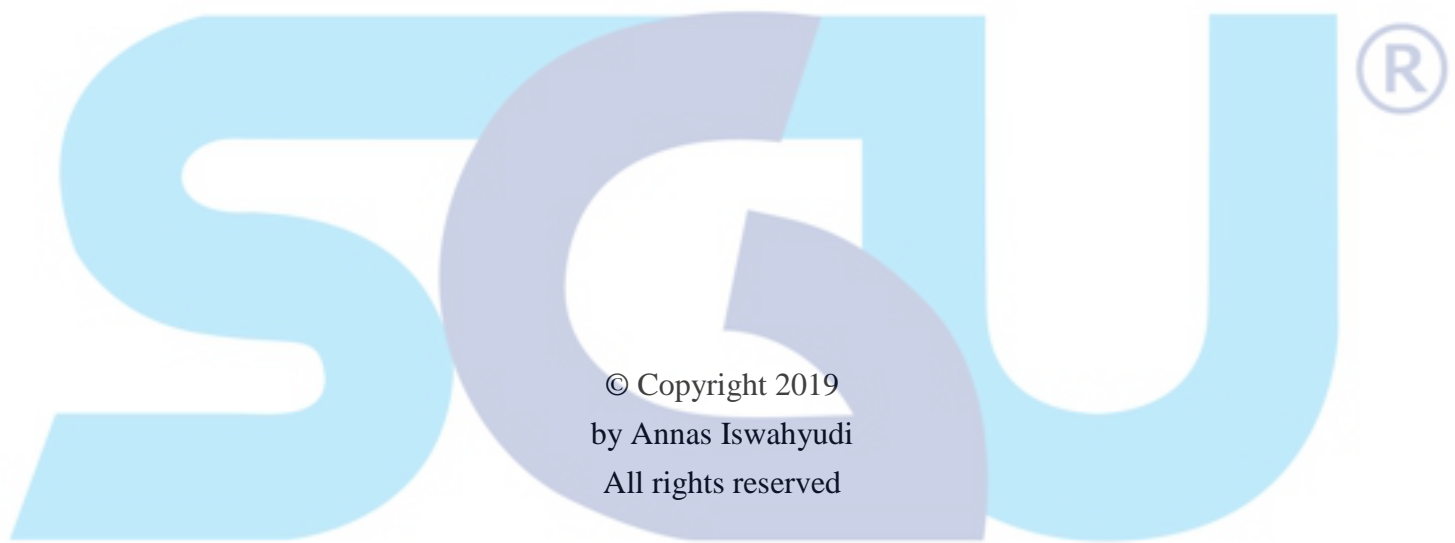
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