A PROPOSED FRAMEWORK FOR IT SERVICES COMPANY IN PERFORMING FEASIBILITY ANALYSIS OF PROJECT'S OPPORTUNITY

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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

A PROPOSED FRAMEWORK FOR IT SERVICES COMPANY IN PERFORMING FEASIBILITY ANALYSIS OF PROJECT'S OPPORTUNITY

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Many IT services companies do not have any opportunity assessment technique that helps in choosing the right project. In order to properly evaluate and decide right projects, it is essential to consider both financial and non-financial factors, such as total cost, implementation time, benefits, risks, strategic fitness, function and technology, vendor's ability, and vendor's reputation (Wei and Wang, 2004a). Thus, conducting a feasibility analysis of the opportunity involving complex evaluation factors in relation with project management is a kind of multiple criteria decision-making problem (Arrey, 2015)(Chakraborty and Yeh, 2007)(Wang and Hsu, 2007). To better accommodate the feasibility analysis with respect to the project function groups, the decision criteria is developed by the derivatives of knowledge areas from the Project Management Body of Knowledge (PMBOK). This research then uses automatic weighting process of decision criteria based on projects' trace, estimates using a prediction model and based on these criteria and weighting, a framework of conducting feasibility analysis is proposed, using the advantage of Analytical Hierarchy Process (AHP). The findings of this research shows that the result of this framework is consistent with the expert judgment of deciding whether the opportunity of projects should be taken or rejected by the company.

Keywords: Feasibility Analysis, PMBOK, Data Mining, Naïve Bayes, AHP.

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DEDICATION

I dedicate this works

to my beloved mother:
Mrs Mediana Setyowati

to all families and friends

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Allah subhanahu wa ta'ala. Alhamdulillahi rabbil 'alamin.
Allahuma shalli wa sallim 'ala Muhammad wa 'ala ali Muhammad.

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