

Design and Build Risk Analysis to The Project Success

Hafnidar A. Rani

Department of Civil Engineering
Muhammadiyah Aceh University
Banda Aceh, Aceh, Indonesia
hafnidar.ar@unmuha.ac.id

Abstract

Design and build is one of the bidding alternatives in which the design and construction phase is in the one contract. In the implementation process, this rehabilitation project faced with the problem related to the uncertainty. The risk caused by the work implementation delay can affect the project success. This research aims to analyze the relationships and influences among design and build risk factors to the project success, and identify the most dominant factor in design and build risk affecting the total rehabilitation project success in education buildings in Jakarta. The method used in this research are qualitative and quantitative method using the questionnaire distribution which total are 47 respondents. The design and build risk factors analyzed in this research are owner management capability factor, procurement process factor, design capability factor, implementation capability factor, project manager capability factor, project scope factor. The results of validity and reliability tests show that all questions items are valid and the variables are reliable. This research results show that project scope factor has the lowest relationship owner management capability factor, implementation capability factor, project manager capability factor have the low relationship; design capability factor has sufficient relationship; mean while procurement process factor has high relation to the project success. All design and build risk factors are significantly affected to the project success which is 69.8%. The most dominant factor of design and build risk affecting the project success is procurement process factor.

Keywords (12 font)

Design and build, procurement, project success

Acknowledgements

I, the undersigned below, Dr. Hafnidar A. Rani hereby states that:

1. In my research, there is no a part or all part that I adopted from other researches without mentioning the resources that can be acted as a plagiarism.
2. To my knowledge, there is also no reproduction of the research or opinion that have ever been written or published by others which I mention as if it is my original research.
3. If there is a part of my research that fit with the plagiarism, I do not mind if some part or all part of my research article will be cancelled.

I create this statement with the truth and can be used appropriately.

Biographies

Hafnidar A. Rani was born in Aceh on March 14th, 1970. She graduated her Bachelor Degree from Syiah Kuala University as a Civil Engineer in 1995. Then she continued her Master Program in Management Magister of Syiah Kuala University and graduated in 2000. She commenced her doctoral program in Construction Project Management of Universiti Utara Malaysia in 2006 and graduated the program in 2012. After receiving her bachelor degree, she became the Civil Engineering lecturer and teaching in Muhammadiyah Aceh University. Her subjects are Construction Management, Project Management, Research Methodology, Statistic and Probability, Engineering Economic, and Value Engineering. Dr. Hafnidar has been in her current position as the Dean of Engineering Faculty in Muhammadiyah Aceh University since 2016. She is actively conducting the researches especially in the last 5 years and also participating in seminar and conferences both national and international. In 2012, she also conducted the research for the community dedication which title was Techniques for Earthquake Resistant House Construction in Coastal Areas. She is also active as the keynote speaker in the seminar both national and international and as the reviewer of some Civil Engineering Journals. Her newest guideline book written is Construction Project Management produced in the beginning of 2016.