

**THE COST OVERRUNS IN GREEN BUILDING  
DEVELOPMENT**

CASE STUDY MINISTRY OF PUBLIC WORKS NEW GREEN BUILDING PROJECT  
REPUBLIC OF INDONESIA

**ANGGORO PUTRO**

A thesis submitted in fulfillment of the  
Requirement for the award of the degree of  
Master of Science (Construction Contract Management)

Department of Quantity Surveying

Faculty of Built Environment

Universiti Teknologi Malaysia

AUGUST 2012

"I declare that this thesis entitled "*The Cost Overruns In Green Building Development, Case Study Ministry Of Public Works New Green Building Project Republic Of Indonesia*" is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree"

Signature : .....

Name : **ANGGORO PUTRO**

Date : 2012

*To my beloved wife, "Widya" and my two gorgeous knights*

*"Jagad and Dirgantara"*

*Thanks to all of your wonderful love and support*

# ACKNOWLEDGMENT

Firstly, I would like to express my gratitude to my main supervisor Assoc Prof Dr Zakaria Yusuf, base on his guidance, critics, sharing and friendship, finally I can finish this miracle job in a very strict time.

I will also say a great thanks to Assoc Prof Dr Maizon Hashim, which I can say more to be my mother in this study, thanks to all of your support and guidance especially for Indonesian second batch in Construction Contract Management UTM Program.

I will also appreciate to all of the amazing support from Prof Ahmad Rosdan Abd Razak as the head of this program as well as the head of quantity surveying panel, En Jamaluddin yaakob, En Norazam Othman and the entire lecture that I cannot mention one by one

I will also dedicate a very wonderful thanks to my Ibu, Bapak, Papa ,Mama, and all of my lovely sister (Anggi, Anie, Anti and Wiena), thx to all of your Doa and support that made me easier to pass all of the entire challenge during this though year.

I am also grateful to Ministry of Public Works Indonesia for sponsoring my master study. All of my Boss and all of my office friend in Directorate of Neighborhood and Building Development.

My postgraduate students should also be recognized for your sharing, support or even critics, thnx for a very kind live during this year

# ABSTRACT

Green building technology is a relatively new technology in Indonesia. The spirit of each party to be able to support the development of this technology is a must that was inevitable. With the worst of a world energy availability conditions then of course the green building technology can be a new hope in addressing this energy shortage. The growing of green technology today will certainly stimulate spirit of each party to be able to apply the new technology in the world of construction, especially related to the development of new building. It was a common knowledge that most people's perceptions towards green building was still struggling on expensive technology, technology that was difficult to understand and even technologies that were not suitable to be applied in Indonesia. Green building versus a conventional building was still a polemic in the development of new building in Indonesia. Most of the stakeholders still thought that if this technology was applied to the project to be implemented, then the possibility of cost overruns occurred would be even greater than the conventional one's. Assumption arose because green building technology was still a relatively new technology, which not many people truly understand and could apply this technology in every construction phase. Through this study, the researcher was trying to answer that the cost overruns occurred in green building would not be too diverse than the cost overruns occurred in conventional building, and if it happened then all parties involved would be able to know what the material or component which can cause it happened. At the end of the study, the reader would get a fairly significant result which showing that cost overruns occurred in green building construction was much lower when compared with the cost overruns occurred in conventional building. In the end, because the uncertainties had been answered, then there would be no reason for the stakeholders not to begin the construction of new buildings with green building technology.