

UNIVERSITI TEKNOLOGI MARA

**BEST PRACTICES IN COST ESTIMATION FOR IT
PROJECT**

ZARIRAH BINTI ZAMAKHSARI

Dissertation is submitted in partial fulfilment of the requirements
for the degree of
Master of Science (Information Technology)

Faculty of Computer and Mathematical Sciences

April 2011

AUTHOR'S DECLARATION

I declare that the work in this dissertation was carried out in accordance with the regulations stipulated by Universiti Teknologi MARA (UiTM). It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. I declare that this dissertation has not been submitted to any other academic or non-academic institution for any other degree or qualification.

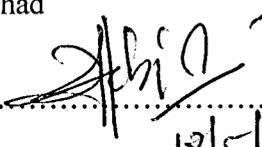
In the event that the dissertation is found to violate any of the conditions mentioned above, I voluntarily waive the right of conferment of my degree and agree to be subjected to the disciplinary rules and regulations stipulated by the university.

Name of Candidate : Zarirah binti Zamakhsari
Candidate's UiTM ID : 2009377395
Program : Masters of Science in Information Technology
(CS770)
Faculty : Faculty of Computer and Mathematical Sciences
Thesis Title : Best Practices in Cost Estimation for IT Project

Signature of Candidate : 

Date : 21/4/2011

Name of Supervisor : Assoc Prof Datin Dr Noor Habibah binti Haji
Arshad

Signature of Supervisor : 

Date : 18/5/2011

ACKNOWLEDGMENT

First and foremost, I want to say Alhamdulillah and thank you to Allah SWT for giving me the ability and strength to finish this dissertation on “Best Practice Cost Estimation for IT Project”. This dissertation is so important to me because this dissertation needs to be submitted in partial fulfilment of the requirement for Degree of Bachelor of Master Sciences in Information Technology. Here, I am Zarirah binti Zamakhsari also want to express a special thank to my lecturer and supervisor, Assoc. Prof. Datin Dr. Noor Habibah binti Arshad for her cooperation and understanding in order to help me to finish this dissertation. Lastly, I would like to acknowledge the contribution of my course mates that have helped me to done this dissertation. My special thanks also to my family for their concern encouragement and support throughout my life. They are one of my most valuable gifts in my life. Again, I also would like to thank Assoc. Prof. Datin Dr. Noor Habibah binti Arshad and other lecturers for their advices and guidance.

Last and by no means least, I would like to express my sincerity gratitude to those who had been involved in contributing their time, effort and support in making this dissertation a success. Finally, I would like to extend my gratitude to all the followings: Assoc. Prof. Datin Dr. Noor Habibah binti Arshad (Academic Lecturer, UiTM), Assoc. Prof. Halilah binti Haron (Academic Lecturer, UiTM), Tuan Haji Zainusham bin Yusof (IT Manager, Ministry of Education), Encik Masror bin Hussin (System Analyst, Ministry of Higher Education), Puan Siti Hawa binti Mahadi (Project Manager, MAMPU), Encik Zainizam bin Yusof (Project Manager, MAMPU), Puan Zuraidah binti Jamaluddin (Project Manager, SIRIM), Encik Mohammad bin Isa (Project Manager, Oratis Services Sdn. Bhd.), Encik Azli (IT Manager, Darul Ehsan Medical Center), Encik Zamani bin Mustaffa (IT Manager, Ministry of Higher Education), Encik Zaim bin Zaki (IT Manager, Palace of Justice), Encik Suffian bin Mohd. Yusoff (IT Manager, Politeknik Sultan Salahuddin Abdul Aziz Shah) and Encik Ahmad Razi bin Rauni (Statistician, Kolej PTPL). I am most fortunate to have the advice and guidance of many intellectual and expert people, whose knowledge have enhanced this dissertation in so many ways.

TABLE OF CONTENTS

	Page
AUTHOR’S DECLARATION.....	i
ACKNOWLEDGEMENT.....	ii
TABLE OF CONTENTS.....	iii
LIST OF TABLES.....	vi
LIST OF FIGURES.....	viii
ABSTRACT.....	ix
CHAPTER ONE: INTRODUCTION	1
1.1 Research Background.....	1
1.2 Research Problem.....	4
1.3 Research Questions.....	9
1.4 Research Objectives.....	9
1.5 Significance of Research.....	9
1.6 Scope of the Research.....	11
1.7 Research Limitation.....	11
1.8 Overview of the Report.....	12
CHAPTER TWO: LITERATURE REVIEW	14
2.1 Introduction.....	14
2.2 Tools use in Cost Estimation.....	17
2.3 Techniques use in Cost Estimation.....	20
2.4 The Practices in Cost Estimation	25
2.5 Factors Influencing The Best Practices in Cost Estimation.....	28
2.6 Conclusion.....	30
CHAPTER THREE: RESEARCH METHODOLOGY	32
3.1 Introduction.....	32
3.2 Research Framework.....	32
3.3 Research Model.....	33
3.3.1 Hypothesis.....	34
3.3.2 Cost Estimation Best Practice Model Development.....	35

ABSTRACT

The role of Information and Communication Technology (ICT) in Malaysia has become more vital with the Malaysian Government exhilarating the pace for various sectors of the industry to embrace ICT. In addressing priority usage of ICT in Malaysia and as the spending on ICT is increasing, it shows that IT practitioner in Malaysia will involve a lot of cost estimation practice for IT project in organization. Cost estimation is one of the most challenging tasks in project management. As far as this research is concerned, there are no researches done on best practice in cost estimation in developing country especially in Malaysia. The purpose of this research is to identify the factors that influenced best practices in cost estimation for IT project in organization. Besides, this research study was aimed to investigate the tool or technique used in cost estimation as well as to develop the cost estimation best practices model for IT project. The scope of this research was to focus on IT practitioner from both Public and Private Sectors at Klang Valley area. This research used primary and secondary sources and the data have been gathered through questionnaire and interview. There are nine factors of best practice cost estimation that have been identified in this research which will be explained further in next chapters. The hypothesis was done and the researcher has found out that the respondent excluded the risk factor and experience as the factor which influences best practice cost estimation. Furthermore, this research investigated cost estimation techniques or tools used in cost estimation. The IT practitioners did not have specific cost estimation techniques or tools and the use of tools or techniques have been summarized. Based on the research analysis, this research proposed a cost estimation best practice model as a guidance to do cost estimation for IT project. Thus, it is important to have a platform that can provides a good starting point in providing the best practices in cost estimation for IT project in Malaysia.