



**Construction Projects Tender Bidding Using  
Economic Analysis in Iraq**

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿وَقُلْ رَبِّ زِدْنِي عِلْمًا﴾

صدق الله العظيم

سورة طه (114)

## DEDICATION

*This thesis is dedicated to the memory of my best friend  
Eng. Ali Salih Al-Nooman, who passed away before  
attending my master studies viva.*

*My parents*

*My wife& Children {Noor, Ali, Harith}*

*Brothers& Sister*

*&*

*Friends*

*Without your enormous help, and unconditional  
support I would have never achieve success today.*

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*Immeasurable gratitude and admiration are extended to my lecturers at Isra University, and to everyone who taught me at every stage of my life.*

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## **Abstract**

The research aims at using economic analysis in bidding tenders through designing of a specific simulation software easy to use in tender bidding to achieve the lowest costs paid by employers and to ensures the balancing of all the items prices without being restricted to views of tender bidding analysis committees and their ability to perform balance work, leading to not delay the projects.

The research methodology including the review of previous researches and studies, and adopted techniques in the bidding of contracting as well as the study of financial and economic analysis approaches and sensitivity analysis, the necessary data collected for this study is from the Iraqi Ministry of Planning which represents the study population. Three projects associated with different ministries were selected, they are residential almajer Project, public health and Nahrain University project as a sample of the study population, these data represent of priced quantities schedule and time schedule provide by contenders contractors on the contract; then the sample population data were analyzed through the use of a designed simulation software to clear the benefits of using economic analysis for tender bidding.

The study found several conclusions and recommendations and the most important of these conclusions is that conventional methods adopted in the tenders bidding do not give the best results because there is no interest with economic analysis and its compliance with the final price submitted by contractors In addition to that the performance of balance in item prices by members of tender analysis committees is not usually accurate because of the difference in the personal views of the members of the committee, as the use of economic analysis and in particular the net present value

gave the best results through calculation of resulting loss in contracts which referred on the base of the final price.

The study recommended the use of economic analysis especially the net present value for tenders bidding to achieve full control to prevent bidding of any contracts which manipulating with its item prices in order to get them.



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## LIST OF ABBREVIATIONS

<b>Abbreviation</b>	<b>Meaning</b>
ETPM	Equivalent Tender Price Model
MCDM	Multi Criteria Decision Making
MADM	Multi-Attribute Decision-Making
MODM	Multi-Objectives Decision-Making
MAUT	Multi-Attribute Utility Theory
SAW	Simple Additive Weighting
AHP	Analytic Hierarchy Methods
PMI	Project Management Institute
ISO	International Standard Association
PMA	The British Association Of Project Management
NPV	Net Present Value
WEBCONTEST	Web-Based Contractor Evaluation System
QFD	Quality Function Deployment
TOPSIS	Technique for Order Preference by Similarities to Ideal Solution