

UNIVERSITI TEKNOLOGI MARA

**DEVELOPMENT OF SUCCESS
FACTOR MODEL FOR
CONSTRUCTION PROJECT**

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ABSTRACT

Failures of construction projects give negative impact to the clients, governments and public. In addition, it affects the reputation of contractors to secure for future projects. Thus, it is essential to find the solution for project success to avoid problems relating to this issue. The main aim of this research is to identify the critical success factors (CSFs) that influence the success factors of construction project in Penang, one of the developed towns in Malaysia. This study focuses on residential projects and determines the relationships among success factors and success criteria. Quantitative method was adopted where 140 of questionnaire surveys were sent to the construction's player i.e. client, consultant and contractor. Structural equation modeling (SEM) using partial least square (SMART PLS 3.0) was used to determine the most significant factors that affecting the construction project success. This model able to predict the construction project success factors and also may assist the construction's player to study and improve the probability of construction project success. Furthermore, the model may be used as a benchmarking in analyzing the factor of project success. The findings revealed ten (10) significant factors which are grouped under three constructs (management factors, resources factors and site environment factors), namely organization commitment in managing construction project, the skill of project manager and the adequate resources provide by contractor; the availability of the required technology and expertise accomplish the specific technical actions, the best technology involve in construction project ensure the progress run smoothly, the good technique guide by contractor in construction ensure the quality of workers' productivity, and the labor productivity affect the project success; and the safety aspect during construction is important to be applied by workers, implement an effective safety program can increase the workers knowledge, and implement an effective quality assurance program can ensure the workers safety at site. The hypothesis finding of t-values for the management factor is 4.618, resources factor is 4.072 and site environment factor is 4.166. The overall t-values for each construct show that each construct is positively related to the project success criteria which explain the 70.1% of the variances, thus supporting the Hypotheses 1, Hypotheses 2 and Hypotheses 3 in this study.

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TABLE OF CONTENTS

	Page
CONFIRMATION BY PANEL EXAMINERS	ii
AUTHOR'S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	xi
CHAPTER ONE: INTRODUCTION	1
1.1 Background of Study	1
1.2 Problem Statement	3
1.2.1 Research Gap	4
1.3 Research Objective	5
1.4 Research Question	5
1.5 Scope of Study	5
1.6 Significance of the Research	6
1.7 Brief Methodology	8
1.8 Hypotheses	9
CHAPTER TWO: LITERATURE REVIEW	10
2.1 Introduction	10
2.2 Project Success	10
2.2.1 Conceptual Framework in Construction Project Success	11
2.3 Project Success Criteria	12
2.4 Project Success Factor and Critical Success Factors (CSFs)	16
2.5 Project Attributes Relationships	27
2.6 Existing Models for Construction Project in Malaysia	30
2.7 Development of Model	33
2.7.1 Partial Least Square-Structural Equation Modeling (PLS-SEM)	36

2.7.2	SMART PLS-SEM Software	38
2.8	Summary	38
CHAPTER THREE: METHODOLOGY		40
3.1	Introduction	40
3.2	Research Area	40
3.3	Research Methodology	41
3.4	Sampling of Data	41
	3.4.1 Research Instrument	42
	3.4.1.1 Demographic Profile	43
	3.4.1.2 Questionnaire Design for Success Criteria	43
	3.4.1.3 Questionnaire Design for Success Factors	45
	3.4.2 Population and Sample Size	48
	3.4.3 Pilot Study	49
3.5	Data Analysis	50
	3.5.1 Mean Rank	51
	3.5.2 Normality Test	51
	3.5.3 Spearman's Rank Correlation	52
3.6	PLS-SEM Analysis	53
	3.6.1 Measurement	53
	3.6.2 Measurement Assessment	54
	3.6.3 Construct Validity	54
	3.6.4 Convergent validity	54
	3.6.5 Discriminant validity	54
	3.6.6 Reliability Analysis	55
	3.6.7 Hypothesis Testing	55
3.7	Summary	56
CHAPTER FOUR: RESULT AND DISCUSSION		57
4.1	Introduction	57
4.2	Pilot Study Data	57
	4.2.1 Reliability Statistical Testing	58
4.3	Collection of Data	58
4.4	Demographic Analysis	59