

**BENCHMARKING JKR QUALITY MANAGEMENT  
SYSTEM WITH INDUSTRY BEST PRACTICE**

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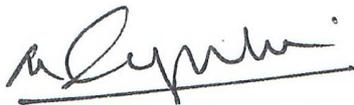
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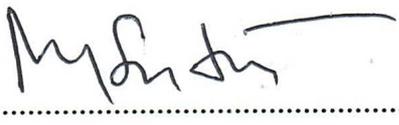
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BENCHMARKING JKR QUALITY MANAGEMENT SYSTEM WITH  
INDUSTRY BEST PRACTICE

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A capstone project report submitted in partial fulfillment of the  
requirements for the award of the degree of  
Master of Project Management

Faculty of Civil Engineering  
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July, 2011

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To my beloved mother Hajjah Siti Salmiah HjYusoff and father Hj. Khasim Hj Bakar, my wife Aniza Mohd and my children Amar, Syamil, Azhad and Sofea.

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## **ABSTRACT**

Competitive pressure today requires organization to develop and maintain a high level of coherence between strategy, action programmes, practices and performance. Benchmarking has become synonymous with successful performance of organization. As a certified organization with MS ISO 9001:2000 in Quality Management System (QMS) it is utmost important for JKR to evaluate its current performance in project implementation to ensure that it exceeds their clients and stakeholders expectation. The study has been carried out with the aim to review to the extent of how benchmarking concept being applied by JKR. It also explores the potential area in JKR that need to be benchmarked in the future as this concept is still new to JKR. The methodologies used for this study include intensive literature review, interviews with expert panels and questionnaires survey. The findings indicate that most of the JKR personnel are well aware of the concept of benchmarking and appreciate its importance to the organization. However as expected practically there is no real process of benchmarking has been carrying out in JKR so far. From the study the following processes have been determined as important to be benchmarked for JKR. Among the important areas are: project monitoring; design development; project planning; project control and project reporting system. This study also developed a general guideline for benchmarking procedure to be used by JKR. It is expected that JKR will review further this guideline to suit their own need.

## ABSTRAK

Tekanan persaingan masa kini memerlukan organisasi membangunkan dan mengekalkan tahap perhubungan yang tinggi antara strategi, pelan tindakan, amalan dan prestasi. Penandaarasan menjadi semakin sinonim dengan kejayaan pencapaian organisasi. Sebagai sebuah organisasi yang telah mendapat persijilan MS ISO 9001:2000 adalah sangat penting kepada JKR untuk menilai semula prestasi dalam pelaksanaan projek untuk memastikan ia memenuhi jangkaan pelanggan. Kajian telah dijalankan dengan tujuan untuk menilai sejauh mana konsep penandaarasan telah dilaksanakan oleh JKR. Kajian telah merangkumi bahagian yang berpotensi untuk dibuat penandaarasan di masa hadapan kerana konsep berkenaan masih baru di JKR. Metodologi yang digunakan dalam kajian termasuklah pembacaan yang intensif, wawancara dengan panel pakar dan kajiselidik. Penemuan menunjukkan kebanyakan kakitangan JKR mempunyai kesedaran terhadap konsep penandaarasan dan maklumkan kepentingannya kepada JKR. Walaubagaimanapun seperti yang dijangkakan secara praktikalnya proses sebenar penandaarasan belum dilaksanakan dalam JKR. Daripada kajian tersebut beberapa proses yang penting telah dipastikan untuk dibuat penandaarasan oleh JKR. Antara proses-proses penting tersebut adalah: pemantauan projek; pembangunan rekabentuk; perancangan projek; kawalan projek dan system pelaporan projek. Kajian juga menghasilkan garis panduan umum untuk digunakan oleh JKR. Adalah dijangkakan pihak JKR akan menyemak semula dengan lebih lanjut untuk disesuaikan dengan keperluan organisasi berkenaan.

## TABLE OF CONTENTS

CHAPTER	TITLE	PAGE
	<b>THESIS TITLE</b>	i
	<b>DECLARATION</b>	ii
	<b>DEDICATION</b>	iii
	<b>ACKNOWLEDGEMENT</b>	iv
	<b>ABSTRACT</b>	v
	<b>ABSTRAK</b>	vi
	<b>TABLE OF CONTENTS</b>	vii
	<b>LIST OF TABLES</b>	xii
	<b>LIST OF FIGURES</b>	xiii
	<b>LIST OF APPENDICES</b>	xiv
<b>1</b>	<b>INTRODUCTION</b>	
	1.1 Introduction	1
	1.2 Problem Statement	2
	1.3 The Aim and Objectives	3
	1.4 Scope and Limitation of Study	3
	1.5 Brief of Research Methodology	4
<b>2</b>	<b>THE CONCEPT OF BENCHMARKING</b>	
	2.1 Introduction	6
	2.2 Concept of Benchmarking	6
	2.3 Benefits of Benchmarking	7
	2.4 What to Benchmark	8
	2.5 The purposes of Benchmarking	9

2.6	Type of Benchmarking	11
2.6.1	Internal Benchmarking	11
2.6.2	Competitive Benchmarking	11
2.6.3	Functional Benchmarking	12
2.7	Guideline for Benchmarking Model	21
2.8	Benchmarking Code of Conduct	13
2.9	Business Process of Benchmarking Process	15
2.10	Problems with Benchmarking	17
2.11	Key Success Factors in Benchmarking	18

### **3. CURRENT APPROACH IN MEASURING JKR PERFORMANCE**

3.1	Introduction	20
3.2	Background of JKR Malaysia	20
3.3	Implementation of Quality Management System in JKR	21
3.4	MS ISO9001:2000	22
3.5	SistemPengurusanKualiti (SPK) JKR	23
3.6	Project Management in JKR	24
3.6.1	Planning Stage	25
3.6.2	Design Stage	25
3.6.3	Procurement Stage	26
3.6.4	Construction Stage	27
3.6.5	Handing-over Stage	28
3.7	Performance Management	29
3.7.1	SKALA	30
3.7.2	Key Performance Indicators	30
3.7.3	Quality of Design Output	31

## **4 RESEARCH METHODOLOGY**

4.1	Introduction	32
4.2	Literature Review	32
4.3	Interview with Expert Panels	33
4.4	Questionnaires Survey	33
4.4.1	Questionnaires Structure	33
4.4.2	Distribution of Questionnaires	34
4.4.3	Sampling Size	35
4.5	Method of Data Analysis	35
4.5.1	Interview with Expert Panel	35
4.5.2	Demography of Respondents	36
4.5.3	Cronbach's Alpha Analysis	36
4.5.4	Frequency Analysis	36
4.5.5	Average Index Analysis	36
4.6	Conclusion	36

## **5 DATA COLLECTION AND ANALYSIS**

5.1	Introduction	37
5.2	Summary of Interview with Expert Panel	37
5.2.1	Perception of Benchmarking in JKR	43
5.3	Questionnaires Survey	47
5.3.1	Background of Respondents	47
5.3.2	Agreement Towards Benchmark Definition by Respondents	48
5.4	Level of Satisfaction Towards JKR Current Practice	54
5.4.1	Reliability Test	54
5.4.2	Customer Satisfaction	55
5.4.3	Project Timeframe	56
5.4.4	Project Cost	57
5.4.5	JKR Strategic Planning	58
5.4.6	Competency of JKR Personnel	59
5.4.7	Contract Management	60

5.4.8	Quality Control in JKR	61
5.4.9	Project Communication Plan	62
5.4.10	Reports and Information	63
5.5	Interview with Expert Panels	63
5.5.1	Awareness of Benchmarking in JKR	67
5.6	The Practices of Benchmarking in JKR	68
5.7	Proposal of Benchmarking Procedure	69
5.8	Conclusion	70

## **6 DISCUSSION OF RESULTS**

6.1	Introduction	71
6.2	Improvement Process	71
6.3	Areas Need Benchmarking	72
6.4	Customer Satisfaction	73
6.5	Business Process Improvement	73
6.6	Quality Control in JKR	74
6.7	Level of Benchmarking Practice	75
6.8	Key Success Factors for Benchmarking Implementation	75
6.9	Organizational Factor	78
6.10	Organizational Culture	79
6.11	Customer Focus	79
6.12	Preparation for Benchmarking	80
6.13	Procedure for Benchmarking	81
6.14	Conclusion	87

## **7 CONCLUSIONS AND RECOMMENDATIONS**

7.1	Introduction	89
7.2	The Concept and The Importance of Benchmarking	89

7.3	The Critical Areas Need Benchmarking	90
7.4	The Procedure of Benchmarking in JKR	90
7.5	Recommendations for Future Research	91
7.6	Conclusions	91
	<b>REFERENCES</b>	92
	<b>APPENDICES</b>	95

## LIST OF TABLES

<b>TABLE NO.</b>	<b>TITLE</b>	<b>PAGE</b>
5.1	Tabulation of Interviewee Background	38
5.2a	Summary of Interview with Expert Panels	40
5.2b	Summary of Interview with Expert Panels (continue)	41
5.2c	Summary of Interview with Expert Panels (continue)	42
5.2d	Summary of Interview with Expert Panels (continue)	43
5.3	Respond of respondent by various department	47
5.4	Benchmarking Brief Definition	51
5.5	The Importance of Benchmarking to JKR	52
5.6	Summary of Areas Need to Benchmark	53
5.7	Reliability Statistic	54
5.8	Factors Contributes to Customer Satisfaction	55
5.9	Timeliness	56
5.10	Project Cost	57
5.11	Strategic Planning	58
5.12	Competency of JKR	59
5.13	Contract Management	60
5.14	Quality Control in JKR Project Implementation	61
5.15	Communication Plan in JKR Project Implementation	62
5.16	Reporting System	63
5.17a	Summary of Interview with Expert Panels (continue)	64
5.17b	Summary of Interview with Expert Panels (continue)	65
5.17c	Summary of Interview with Expert Panels (continue)	66

**LIST OF FIGURES**

<b>FIGURE NO.</b>	<b>TITLE</b>	<b>PAGE</b>
1.1	Schematic of Research Methodology	5
3.1	Quality Model	23
3.2	JKR Business Process in Project Management	24
3.3	Planning Process	25
3.4	Design process	26
3.5	Construction Process	28
3.6	Testing and Commissioning Process	28
3.7	Handing-over Process	29
5.1	Distribution Based by Sector	48
5.2	Distribution Based by Discipline	48
5.3	Years of Experiences	49
5.4	Scope of Works	49
6.1	Benchmarking Stages	82

**LIST OF APPENDICES**

<b>APPENDIX</b>	<b>TITLE</b>	<b>PAGE</b>
A	The Interview Questionnaire Form	95
B	The Questionnaire Survey Form	97
C	The Interview Questionnaire Form	105

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

Nowadays, organizations are looking ways that can improve their performance. One of them is by using benchmarking. Survival of today business is about learning from others who are better. Useful lessons can be learned by organization who have compare themselves with other organization in the same or different industries. Competitive excellence should be the driving force for continuous improvement. Quality, time and cost have become the target for benchmarking study.

Benchmarking is a method used for performance improvement by organizations. It was done by comparing, adapts and adopts and revised other organization best practices and implements it in the organization. Continuous improvement process has an impact to the performance of the organization. Nowadays it has become a common tool for the organization to sustain and be competitive.

The philosophy of benchmarking is to provide an open minded thinking to the organization in the sense of always looking for better way of improvement. New idea will be generated and the way of doing thing will be improved or change to meet the customer satisfaction. The outcome of benchmarking will be on reducing operational cost, service delivery, and product quality and customer satisfaction.

Public is seeking improvement of the services by government agency. Various programs have been done by government to improve the quality of public service such as service counter quality, benchmarking, total quality management, MS ISO 9000 and other various programs. Government had launched the Guideline for the implementation of MS ISO 9000 in the Civil Service (MAMPU, 1999). The guideline anticipates the transformation of Malaysian public sector in more effective quality management. However the quality improvement program should be continuously done and revised to meet the challenge of current change.

## **1.2 Problem Statement**

JKR as the largest technical of government agency has been given a task as a project implementer for construction of government infrastructure, building and managing government assets. JKR Quality Management System (QMS) known as Sistem Pengurusan Kualiti (SPK) was certified by SIRIM in 2000. The main objective of SPK JKR was to ensure the customer satisfaction by delivering project with quality, within cost and agreed time. However reports from JKR monitoring system known as SKALA and Construction Quality Audit show the project delivery does not meet the customer satisfaction. Among the problems and comments highlighted by clients are as following;

- i. The design does not complete on time
- ii. The tender does not execute as schedule
- iii. Lack of communication among stakeholder
- iv. Lack of coordination among stakeholder
- v. The project does not complete on time as schedule
- vi. The project need extension of time in order to be completed
- vii. The quality of construction and installation does not meet the good engineering practice and functional requirement.
- viii. Discrepancy and error in construction drawing

### **1.3 Aim and the Objectives**

The aim of the study was to produce a systematic procedure to benchmark the JKR Quality Management System with industry best practices.

The objectives of the study are as follow:

- a) To review the concept of benchmarking and its importance in JKR
- b) To determine the critical area need to be benchmarking for JKR.
- c) To proposed a systematic approach for JKR to establish a standard benchmarking procedure

### **1.4 Scope and Limitation of Study**

The focus area of benchmarking covers in this study is limited to the project design process. Project design process is the second stage in project management after planning process.

The scope of the study was limited to the following factors

i. Time

The time is limited and done in two semesters. The first part of study was done in semester 1 for literature review. The second part of study was done in semester 2 for data collection, analysis and conclusion.

ii. Stakeholder

All data were collected from respondents of JKR Headquarters specifically from design office, project office, client ministry; Planning Division Ministry of Health and consultants involved with healthcare project.

iii. Scope of Project

All data collection were based on healthcare facility project manage by JKR Headquarters.

## **1.5 Brief of Research Methodology**

Research methodology is a framework on how the study is carried out. The research framework is divided into three phases; phase 1, phase 2 and phase 3. Phase 1 involves determinations of aim, objectives of the study and scope of study. Literature review involves reading of articles, journals, books related to benchmarking, quality management system and best practices. Phase 2 involves the interview with expert panels to get a clear perspective about the concept of benchmarking issue related to JKR, performance indicators, business process and document search to gather on performance exercise based on current JKR practice in evaluating the performance of organization. Comparison has been made with current performance practice and summary of interview. Then questionnaires were used to investigate the understanding and the importance of JKR, the area need to benchmark and the level of satisfaction towards current JKR practices from respondents; JKR and non JKR. The data collected from survey was analyzed. Phase 3 consists of producing a systematic procedure of benchmarking for JKR. The proposed procedure was validated by expert panels.

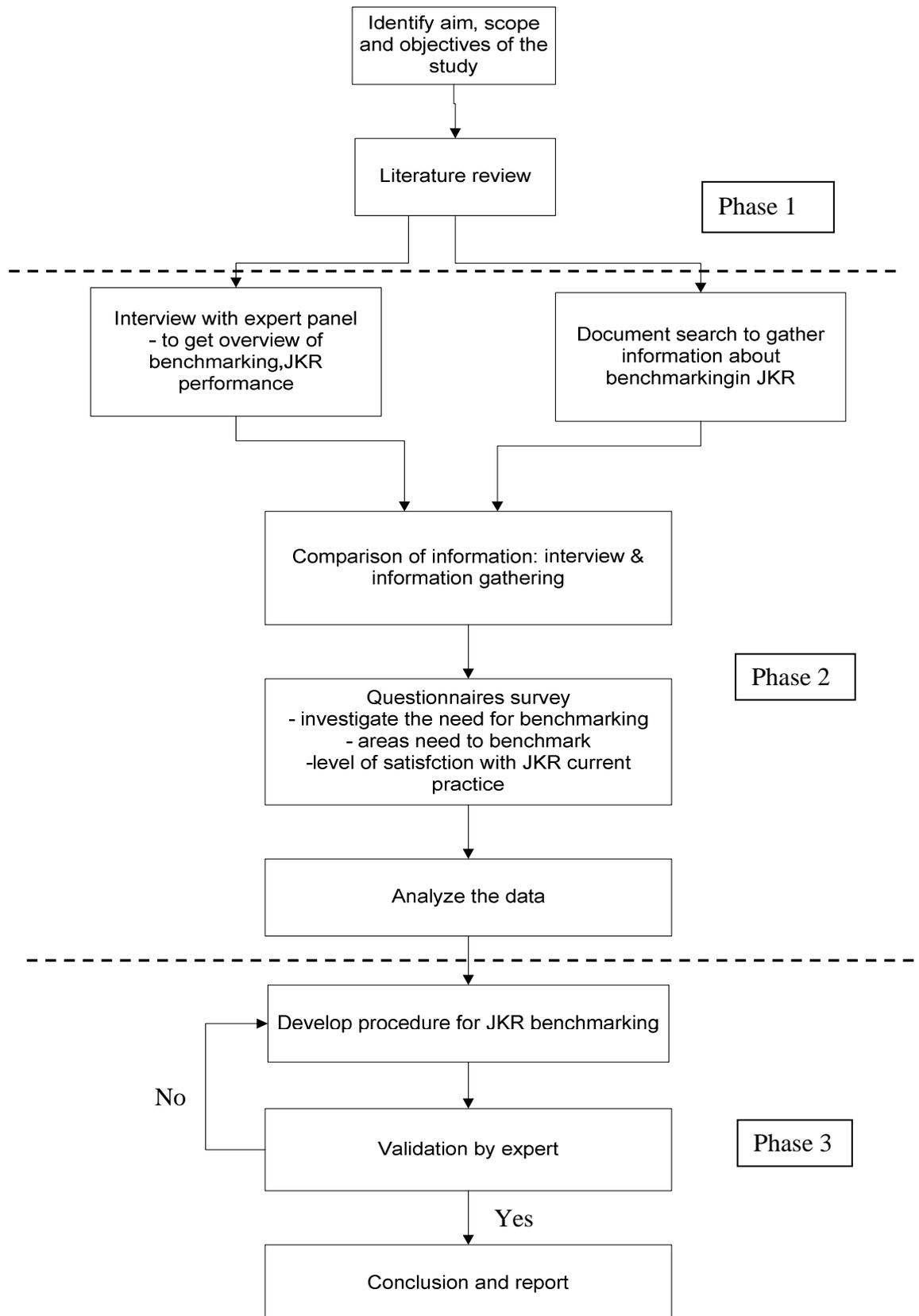


Figure1.1: Schematic of Research Methodology