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LEVERAGING ON LESSON LEARNT IN JABATAN KERJA RAYA  
PROJECT MANAGEMENT

RAMLAN BIN HAMZAH

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

Faculty of Civil Engineering  
University Teknologi Malaysia

MAY 2011

I declare that this project report entitled “ *Leveraging on Lesson Learnt in Jabatan Kerja Raya Project Management*” is the result of my own research except as cited in the references. The report has not been accepted for any degree and is not concurrently submitted in candidate of any other degree.

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To my beloved wife and children

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## ABSTRACT

Over time during the project implementation, project managers in JKR experiencing and witnessing project's success and failure in achieving its objectives. The experiences whether good or not so good teach the project managers' important lessons better known as lesson learnt. However do the project managers really learn from these lessons? Even if they really learn some of the lessons, does this lesson always being shared with others? Furthermore, does this lesson learnt shared with larger entities in the organizations? Unfortunately not always. The organization realized that the important of the leveraging on lesson learnt in JKR project management and wants this lesson learnt to be shared among project managers and personnel who involved with project in the organization. The lesson learnt will enable them to manage and execute project more efficiently and effectively in the future. The aims of the study are to identify the process that required in order capturing the lesson learnt, identify who are the parties responsible and linked to the process required in leveraging the lesson learnt and to propose a framework for leveraging lesson learnt in JKR project management. The expert interview and questionnaires survey were conducted involving Head of Project Team, Head of Design Team, Superintending Officers and personnel involved with project management in JKR. It was found that the standard lesson learnt process is not available yet in JKR, thus lesson learnt practices was more individual and unorganized. The study identified the required new standard lesson learnt processes. The lesson learnt processes must be assigned to the identified responsible person to it. In this context, the study identified the parties who were responsible to each processes of the lesson learnt processes. The study also proposed the time when the lesson learnt activity supposed to carry out. Finally, the lesson learnt process framework which combine lesson learnt process, identified parties responsible to and time when lesson learnt activities supposed to carry out was develop for JKR.

## ABSTRAK

Dengan perjalanan masa semasa pelaksanaan projek, pengurus projek JKR mengalami dan menyaksikan kejayaan dan kegagalan projek dalam mencapai objektif projek tersebut. Pengalaman ini samada baik atau kurang baik mengajar pengurus projek pelajaran penting yang lebih dikenali sebagai pembelajaran yang dipelajari. Bagaimanapun, adakah pengurus benar-benar belajar dari pembelajaran tersebut? Meskipun pengurus mempelajari pembelajaran tersebut apakah pembelajaran tersebut tersebut dikongsi bersama individu lain? Selanjutnya adakah pembelajaran tersebut dikongsi bersama entiti yang lebih besar di dalam organisasi? Malangnya tidak selalu. Organisasi menyedari akan kepentingan memperluaskan penggunaan pembelajaran yang dipelajari ini dan ingin pembelajaran ini dikongsi bersama di antara pengurus-pengurus projek lain dan pegawai di dalam organisasi yang terlibat dengan pengurusan projek. Pembelajaran yang dipelajari ini membolehkan mereka mengurus dan melaksanakan projek dengan lebih cekap dan berkesan di masa hadapan. Matlamat kajian ini adalah untuk mengenalpasti proses yang diperlukan dalam penawaran pembelajaran yang dipelajari ini, mengenalpasti siapakah pihak yang bertanggungjawab dan berkaitan dengan proses yang diperlukan tersebut dan mencadangkan rangkakerja untuk memperluaskan penggunaan pembelajaran yang dipelajari ini di dalam pengurusan projek JKR. Temuduga kepada pakar dan soalselidik telah dibuat melibatkan Ketua Kumpulan Projek, Ketua Kumpulan Rekabentuk, Pegawai Penguasa dan pegawai-pegawai yang terlibat dalam pengurusan projek di dalam JKR. Adalah didapati dari kajian bahawa belum ada proses pembelajaran yang seragam yang diterimapakai untuk JKR sehingga kini, menyebabkan amalan pembelajaran dari pengalaman adalah tertakluk lebih kepada individu itu sendiri dan tidak teratur. Kajian ini telah mengenalpasti proses yang seragam yang diperlukan. Proses tersebut perlu dilaksanakan oleh pihak yang dikenalpasti. Kajian ini, dalam konteks ini telah mengenalpasti pihak yang

bertanggungjawab terhadap setiap proses tersebut. Kajian ini juga telah mencadangkan bila aktiviti pembelajaran yang dipelajari ini sepatutnya dijalankan. Akhirnya, kerangka proses pembelajaran yang dipelajari ini, yang menggabungkan proses pembelajaran, pihak yang bertanggungjawab dan masa aktiviti tersebut sepatutnya dijalankan telah dibina untuk JKR.

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## LIST OF ACRONYMS

ACPA	Air Campaign Planning Advisor
ASAP	As soon as possible
CALL	Centre of Army Lesson Learn
CPD	Continue Professional Development
CRM	Customer Relationship Management
HODT	Head of Design Team
HOPT	Head of Project Team
JKR	Jabatan Kerja Raya
KM	Knowledge Management
LL	Lesson Learnt
LLDB	Lesson Learnt Database
PD	Project Director
PM	Program Manager
PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute
PMO	Portfolio Management Office
PROKOM	Project Complex Branch
SECI	Socialization, Externalization, Combination and Internalization
S.O	Superintending Officer
SOP	Standard Operating Procedure
SPK	Sistem Pengurusan Kuantiti
SPSS	Statistical Package of Social Science
TQM	Total Quality Management

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Introduction

JKR being project management consultant for the government, hold the responsibility to ensure the successful implementation and completion of government projects. The implementation and completion of the project were considered successful when the objectives of the projects carried out have been achieved, that is if it was completed within the approved cost budgeted, with the specified timeframe and within the accepted quality.

Project managers in JKR, during the implementation of the project obviously had come across a lot of experiences. There must be some 'who consistently execute projects successfully, whose estimates are generally on target, and who seems to avoid the fire fighting mode most of the time

Same goes to any mistake that had happened during the implementation of the projects. The mistake might cause extra costs, poor quality and project delayed.

However do the project managers really learn from these lessons? Even if they really learn some of the lessons, does this lesson always being shared with others? Furthermore, does this lesson learnt shared with larger entities in the organizations? Unfortunately not always. The organization realized that the important of the leveraging on lesson learnt in JKR project

management and wants this lesson learnt to be shared among project managers and personnel who involved with project in the organization. The lesson learnt will enable them to manage and execute project more efficiently and effectively in the future. The challenge now is to collect the lesson learnt in the project management and make them useful to others. The question arise now is what is the mechanism in order to capture the lesson learn in the project management? Next question is who will ensure that the leveraging of the lesson is taken place in the organization?

This study will propose on how lesson learn process should be carried out in managing project in JKR. In relation to that, the study will also name who in the organization that responsible to make this leveraging of lesson learnt can be benefitted to others.

## **1.2 Problem Statement**

In a survey by Ernst & Young of 130 Project Management Institute (PMI) members at a PMI meeting at Seattle, Washington in October 2006, although 91% of the respondents believed Lesson Learned reviews on projects were important, only 13 % said their organizations performed them on all projects and only 8 % believed the primary objective of the reviews was to understand the benefits that would accrue to the organization. (Mark Marlin 2008) .Unfortunately, very few organizations can claim they have effective Lesson Learned process that spans their global project operation. (Mark Marlin 2008).

In JKR, for now, there is no proper lesson learnt process available and there is unclear who is supposed to leverage the lesson learnt in JKR

project management. Due to that reason, the leveraging of lesson learned is still not widely practised in JKR project management.

### **1.3 Research Question**

The research question for this study will be:

- 1) What is the process required in order to capture the lesson learnt in the project management in JKR?
- 2) Who are the responsible parties linked to the process required in leveraging the lesson learnt in JKR project management?
- 3) How is the lesson learnt process framework will be in JKR?

### **1.4 The Aim and Objectives of the Study**

The aims of the study are as follows:

- 1) To identify the process that required in order to capture the lesson learnt in project management in JKR.
- 2) To identify who are the responsible parties linked to the process required in leveraging the lesson learnt in JKR project management.
- 3) To propose a lesson learnt process framework for leveraging lesson learnt in JKR project management

## **1.5 Significance of the Study**

### **1) For JKR.**

The study will come out with the process of capturing lesson learnt that can be benefited to organization which now are not available yet.

### **2) For JKR Staff**

The study will provide a process that can be applied by the staff that is involve in project management.

## **1.6 Scope of the Study**

Generally the scope of the study is about leveraging lesson learned in JKR project management. The study will cover the lesson learnt theory, its processes and responsible person related to it in JKR project management.

## **1.7 Limitation of the Study**

The study limit to Head of Project Teams (HOPT), Head of Design Teams (HODT) and Superintending Officer (S.O) in JKR the outcomes of the study are to be used for JKR usage only.

## 1.8 Conceptual Definition

### 1.8.1 Learning

Learning is the act or experience of one that learns knowledge or skill acquired by instruction or study and modification of a behavioural tendency by experience (as exposure to conditioning). (Merriam-Webster Dictionary).

Learning is process of acquiring modifications in existing knowledge, skills, habits, or tendencies through experience, practice, or exercise. Learning includes associative processes, discrimination of sense-data, psychomotor and perceptual learning, imitation, concept formation, problem solving, and insight learning. (Britannica Concise Encyclopaedia)

I want to talk about *learning*. But *not* the lifeless, sterile, futile, quickly forgotten stuff that is crammed in to the mind of the poor helpless individual tied into his seat by ironclad bonds of conformity! I am talking about *LEARNING* - the insatiable curiosity that drives the adolescent boy to absorb everything he can see or hear or read about gasoline engines in order to improve the efficiency and speed of his 'cruiser'. I am talking about the student who says, "I am discovering, drawing in from the outside, and making that which is drawn in a real part of *me*." I am talking about any learning in which the experience of the learner progresses along this line: "No, no, that's not what I want"; "Wait! This is closer to what I am interested in, what I need"; "Ah, here it is! Now I'm grasping and comprehending what I *need* and what I want to know!" Carl Rogers 1983: 18-19.

Learning occurs when people reflect on their experiences, and provides opportunities to increase knowledge, and the ability to apply

knowledge in new areas. Reflection refers to identifications of patterns, and integration of new understanding into existing knowledge structure (Cooper, 2009)

In relation to organization, Kotnour (2000) said that an organisation ought to continuously ensuring that it learns from experiences. In addition, members of the organisation create knowledge by being engaged in learning experiences. Stacey (2003) said that learning is the activity of interdependent people and can only be understood in terms of self-organising communicative interaction and power relating in which identities are potentially transformed. Individuals cannot learn in isolation and organisations can never learn.

Senge (1994: 49) defined learning in an organisation as “the continuous testing of experience, and the transformation of that experience into knowledge – accessible to the whole organization, and relevant to its core purpose”.

### **1.8.2 Lesson Learn**

According to Secchi at al (1999), a lesson learned is a knowledge gained by experience.

Lesson learned is a technique, procedure, or practical workaround that enabled a task to be accomplished to standard based on an identified deficiency or shortcoming. (Joint Chief of Staff, Department of Defence USA, 2000)

The Project Management Body of Knowledge (PMBOK) defines lesson learnt as “The learning gained from performing the project. Learning may be identified at any point”.

A Lesson Learned Process is one that crosses functional boundaries and allows an organization to learn from both its mistakes and successes. An effective Lesson Learned process should prevent us from repeating our mistakes and allow us to repeat our successes. It should be an instrumental part of any organization’s overall “continuous improvement” process. (Mark Marlin 2008)

### **1.8.3 Project**

“A project is a temporary endeavour undertaken to create a unique product, service or result. Temporary means that every project has a definite beginning and a definite end. The end is reached when the project’s objectives have been achieved, or it becomes clear that the project objectives will not or cannot be met, or the need for the project no longer exists and the project is terminated. Temporary does not necessarily mean short in duration; many projects last for several years. In every cases however, the duration of the projects is finite. Projects are not ongoing efforts. In addition, temporary does not generally apply to the product, service or result created by the project. Most projects are undertaken to create a lasting outcome. For example, a project to erect a national monument will create a result expected to last centuries. Projects also may often have intended and unintended social, economic and environmental impacts that far outlast the projects themselves. The temporary nature of projects may apply to other aspects of the endeavour as well:

- The opportunity or market is usually temporary-some projects have a limited time frame in which to produce their product or service.
- The project team, as a working unit, seldom outlives the projects-a team created for the sole purpose of performing the project will perform that project, and then the team is disbanded and the team members reassigned when the projects ends.

A project creates unique deliverables, which are products, services, or results. Projects can create:

- A product or artefact that is produced, is quantifiable, and can be either an end item in itself or a component item.
- A capability to perform a service such as business function, supporting production or distribution
- A result, such as outcomes or documents. For example, a research project develops knowledge that can be used to determine whether or not a trend is present or a new process will benefit society.

Uniqueness is an important characteristic of project deliverable. For example, many thousands of office building has been developed, but each individual facility is unique-different owner, different design, different location, and different contractors and so on. The presence of repetitive elements does not change the fundamental uniqueness of the project work.” (PMBOK, 3<sup>rd</sup> Edition, 2003).

#### **1.8.4 Project Management**

Project management is the application of knowledge, skills, tools and techniques to project activities to meet project requirements. Project management is accomplished through the application and integration of the project management processes of initiating, planning, executing, monitoring and controlling, and closing. (PMBOK 3<sup>rd</sup>.Edition)

Guy L. De Furia (2009) defines Project management as that part of general business management that specializes in the conditions, procedures, and problems associated with running a project. Some of the procedures in project management are similar to general management (e.g., cost estimating) and others are unique to project management (e.g., network diagramming).

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Experiential learning.

The study is involving the adult learning through direct working. Term as experiential learning, it is the experience that encounters in the process of learning. Stephen Brookfield (1983) has commented, writers in the field of experiential learning have tended to use the term into contrasting senses. On the one hand the term is use to describe the sort of learning undertaken by students who are given a chance to acquire and apply knowledge, skills and feelings in an immediate and relevant setting. Experiential learning thus involves a, 'direct encounter with the phenomena being studied rather than merely thinking about the encounter, or only considering the possibility of doing something about it.'(Borzak1981). This sort of learning is sponsored by an institution and might be used on training programmes such those for social work and teaching or in field study programmes such as those social administration or geography courses.

The second type of experiential learning is 'education that occurs as a direct participation in the events of life' (Houle 1980). Here learning is not sponsored by some formal education institution but by people themselves. It is learning that is achieved through reflection upon everyday experience and