



## **A Comparative Study of Malaysian Public Project Management Training**

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### **ABSTRACT**

Public projects have been found to be short on quality, incurring endless cost overruns and guilty of extensive time delays, as highlighted in the annual Auditors' General Reports. One critical aspect that has been emphasised is the conduct of the public officers managing the projects, and it has been concluded that the effectiveness of the training provided to them is questionable. A Project Management Reference Framework was developed to assess the training provided to project managers and the framework was validated by construction professionals. This paper continues a study on the assessment of the training modules provided for public project management officers. The aim of this study is to give an overview of what is being offered compared to what is required in real practice. The mixed method was used for this study, which employed the concurrent exploratory technique. The training modules that were assessed were obtained from the National Institute of Public Administration (INTAN), the Construction Industry Development Board (CIDB) and also the Public Works Department (PWD). The findings of this study show that the focus of the training that was assessed was not aligned with what is required by the industry. This study

suggests that training providers need to have a plan and a common recognised term of reference for developing training and the training should emphasise on industry needs

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so that the industry benefits from effective training to produce a reliable and competent workforce.

*Keywords:* Project management training, public projects, reference framework, training adequacy

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## INTRODUCTION

The 2015 annual report of the Construction Industry Development Board (CIDB) stated that public projects represented more than 20% of the total projects awarded in 2015 (CIDB, 2016). The value of public projects amounted to RM16 billion, of which a large portion was spent on non-residential and residential projects. Other types of project such as infrastructure and social amenities projects are also developed by the government but in small numbers.

Regrettably, the delivery of infrastructure and facilities requiring construction has been poor. This underperformance was detailed in the Auditors' General Report (National Audit Department, 2016), which assessed the performance of public projects and highlighted numerous issues that contributed to the poor performance of public projects. From the review of the Auditors' General Report (NAD, 2016; NAD, 2015; NAD, 2014; NAD, 2013; NAD, 2012), it can be summarised that the majority of the projects underperformed in terms of quality, cost and time.

Among the notable issues that were further highlighted in these reports are the lack of monitoring/supervision by responsible parties, insufficient technical expertise and complete reliance on

consultants/contractors, lack of coordination among agencies involved and internal problems faced by contractors. What is more, the same findings are reported year after year, as reviewed from past Auditors' General Report over the last five years from 2011 to 2015. It is quite worrying that little has been done to revamp the sector.

This study looked into the underlying factors affecting the performance of public projects. One particular area considered relevant for investigation related to the competencies of the people responsible for managing these projects. To gain competency, a worker must receive on-the-job training to elevate his knowledge and understanding of the work being done (Boyatzis, 2008). Training should be aligned to what is required and needed within the practice in order to produce a competent workforce. However, the training that was developed was questionable for its effectiveness in delivering the desired outcome.

Hence, this study focussed on assessing the adequacy of the training offered to public officers who are managing public projects. This assessment serves as an overview of the adequacy of the current training modules, and the findings may help suggest further improvement in areas that are still lacking in the training of public project officers.

### Public Project Management Trainings

Training is an essential part of improving the performance of the workforce (Boyatzis, 2008). Training for public officers is

primarily provided by the National Institute of Public Administration (INTAN), the Public Works Department (PWD) and the Construction Industry Development Board (CIDB). The training structure and modules used are completely different from one another; nonetheless the training objectives are the same, which is to produce competent officers. However, a study by Mustaffa Kamal, Mohd Affandi and Hassan (2015) showed that the training lacked in delivering in key knowledge areas in managing projects. The findings of the study provided an overview of the areas that needed more attention and improvement.

In practice, Malaysian public project management generally utilises the available international standards in developing training module. However, the adaptation of these standards appears to be not delivering the desired performance required of the officers managing the projects. Project management training modules developed by different key agencies such as INTAN, PWD, CIDB etc. have been found to show variations. This variability is believed to be caused by differences in how project management is conceived and interpreted (Implementation Coordination Unit, 2013).

It has also been identified that the absence of a common recognised reference

framework has rendered the training inadequate (Kamal, Hassan, Affandi, & Ismail, 2012), and this lack has indirectly contributed to the performance of public projects (NAD, 2012; NAD, 2013; NAD, 2014). This has drawn criticism due to the fact that the training provided has been short on delivering key knowledge and skills required on the job (Hassan, 2012). These issues have been discussed at national level (Economic Planning Unit, 2015) and it is important for corrective measures to be taken.

### **Training Reference Framework**

Developing a reference framework is a critical early step in designing training. In the narrowest sense, it is the basis for arrangement of activities, though it should first be developed as a means of clarifying the process that should be in place. The time and effort spent in preparing a good reference framework provide big returns in terms of the quality, relevance and usefulness of the training. The depth and details of the reference framework will, of course, vary. The standard for the reference framework, which involves many stakeholders, would need to be quite detailed, while for an activity, it could be a simple outline.

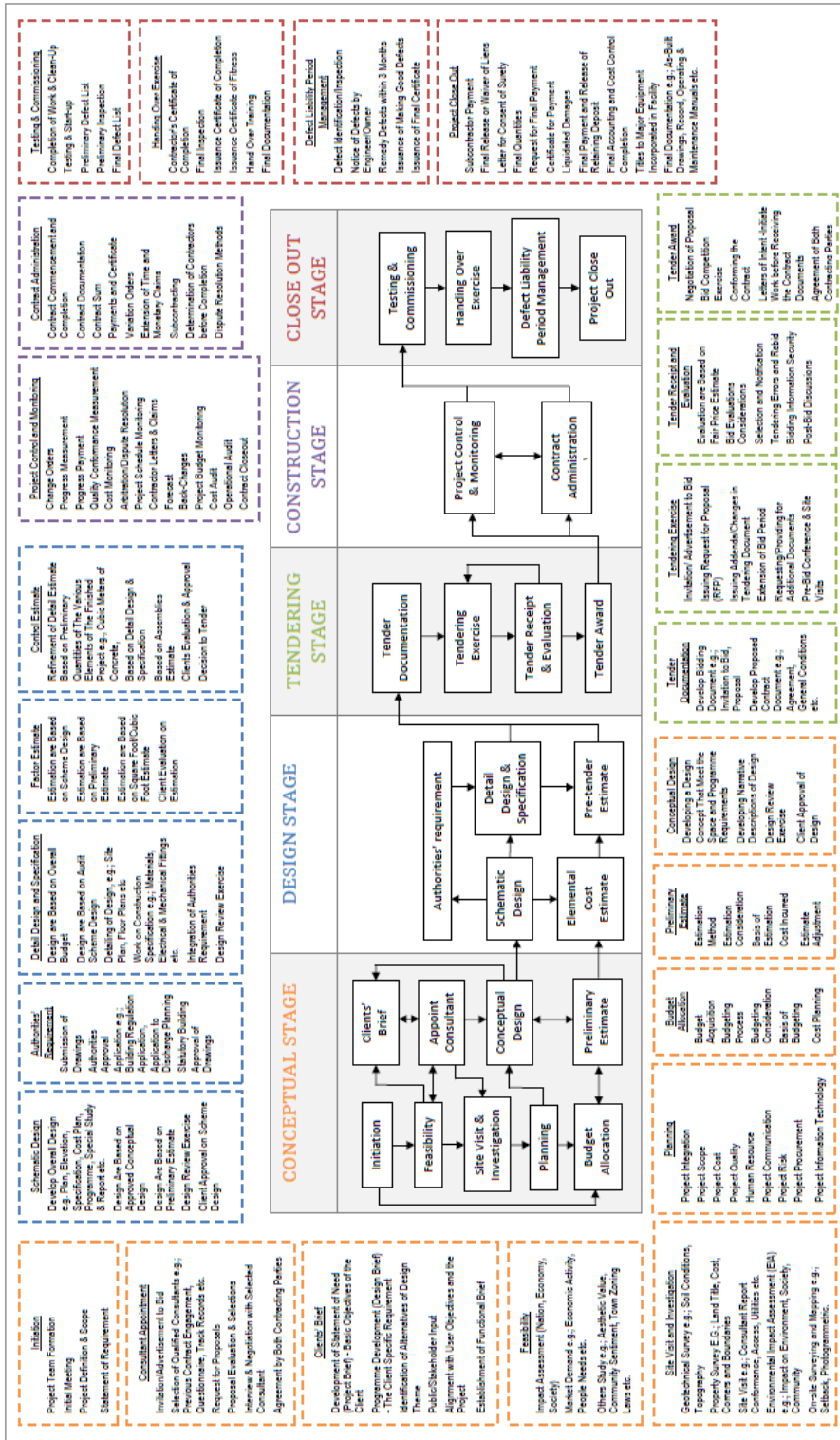


Figure 1. Project management reference framework  
Source: Mustafa Kamal, 2016

The reference framework adopted for this study is as illustrated in Figure 1. This reference framework was developed to address the lack of a common recognised term of reference in public project management in Malaysia (Mustaffa Kamal, 2016). The framework consists of the typical project activities found in the traditional procurement method. The framework provides a tool to assess current training modules and also to develop future training modules, providing an overview of the critical area that needs to be focussed on.

## **METHODOLOGY**

The mixed method design was adopted for this study, which employed the concurrent exploratory technique. This technique utilises and complements both the quantitative and the qualitative data collection methods to obtain the results (Creswell, 2009). For this study, the function of the quantitative part was to identify the level of importance of each item in the framework according to real practice, while the qualitative part served to identify the coverage of the training modules according to the item in the framework. Both of these results were then being compared and the adequacy of each training module was compared with real practice and the data were obtained.

The main instrument used for this study was the questionnaire survey and the training modules itself. The questionnaire was distributed to the designated sample, which were project managers who had more than 20 years of experience in managing projects. The training modules that were

analysed were chosen were from the National Institute of Public Administration (INTAN), the Public Works Department (PWD) and the Construction Industry Development Board (CIDB).

The Rasch Measurement Model was used for the analysis of the quantitative data. Item measurement analysis was carried out on the data in order to identify the level of importance of each item in the reference framework (Bond & Fox, 2015). The results were in the form of measure scoring to define the level of importance of each item. The qualitative data were analysed using the document analysis technique with the assistance of the N-Vivo software. The training modules were transcribed and themed into predetermined themes using the software. Once the process had been completed, the number of items covered in the training modules based on theme was recorded and converted into percentage. This percentage was the indicator to gauge the level of adequacy of the training modules. The results of the analysis are presented in the next section.

## **RESULTS**

The results of this study are shown in Table 1. The score in the second-left column is for the ideal important activities in construction management practice based on the findings of the survey. A negative value under items measured indicates that the item was more important, while a positive value indicates the item was less important (Linacre, 2011). This measure was the basis to gauge the training modules and to see whether the

modules being developed were aligned to what is required in real practice. The other three columns represent the coverage of the training modules compared to real practice. The training modules were mapped onto the framework to identify the coverage level.

Table 1  
*Trainings adequacy compared to the actual practice requirements*

Item	Measure of Importance	Coverage of Public Training Modules		
		INTAN (%)	PWD (%)	CIDB (%)
Project monitoring	-1.56	29	7	79
Contract administration	-1.17	0	0	100
Tender document	-1.17	100	0	100
Tender receipt & Evaluation	-1.00	50	34	0
Tender award	-0.84	20	20	40
Planning	-0.84	0	89	100
Testing & Commissioning	-0.69	20	0	100
Budget allocation	-0.54	20	89	80
Tendering exercise	-0.41	17	50	7
Detail design & Specification	-0.41	0	0	0
Clients' brief	-0.41	17	0	83
Conceptual design	-0.27	0	0	50
Site visit & Investigation	-0.14	0	0	100
Control estimate	0.10	0	0	20
Factor estimate	0.45	0	0	25
Defect liability Period	0.56	17	50	100
Authority requirement	0.56	0	0	40
Preliminary estimate	0.56	20	0	100
Handing over	0.78	0	0	0
Initiation	0.92	100	50	50
Closeout	1.00	0	0	45
Feasibility study (macro)	1.00	100	0	100
Scheme design	1.41	0	0	20
Consultant appointment	2.10	0	0	17

## DISCUSSION

The comparison recorded in Table 1 shows a variable outcome for the training modules that were assessed. The CIDB training module covered most of the important

items according to real practice compared to the INTAN and PWD training modules. However, this does not guarantee that the training is sufficient. This is due to the fact that their training level focusses



on participant with a technical education background and experience in managing projects. As the majority of public representatives are not well versed in managing projects, the training was found to be insufficient.

The PWD training module had the lowest coverage compared to the framework. However, this does not mean that their training was not sufficient. PWD is a unique organisation that designs their training according to their needs. It is a technical organisation. The majority of their staff come from a technical background and it is only natural that their training focusses on the management of projects. Although they claimed that their training is suitable for the public sector, the results show otherwise.

The INTAN training module covered less than half the items in the framework. INTAN as the main training provider for the public sector should cater for the needs of the public sector with more holistic training, but the analysis shows that the module is severely insufficient. Due to this, improved training is needed to cater for the needs of the public sector.

The findings suggested that the structure of the current training provisions does not align itself with what is required by the industry. It can be suggested that in order to develop proper and holistic training, input from stakeholders, namely, industry players, is very important. In addition, critical key knowledge areas must be incorporated in the training provisions. This action is crucial as training is considered a

long-term investment for the benefit of the organisations and improvement in overall performance.

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