

## **Better Understanding of Project Management for Small Contractors in Malaysia**

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### **Abstract**

Project management is a carefully planned system that applies knowledge, skills, tools, and techniques and utilizes resources in order to achieve a specific goal. Through implementation of project management in any project, it will allow full utilization of resources, reduce cost and money, and eventually will contribute towards the success of the project. But, failure in the organization to implement such system will likely contribute to the failure in the project subsequently. Project management actually had become an important essence towards the success of any aspect in life. Questionnaires survey were sent to Class F Contractor in Malaysia and found that these contractors do has high degree of implementation of PM in their projects. It was found that they implemented project management in their organization by using various project management tools with the utilization of a very minimal amount of manpower and cost. It was found also that there are various differences in their implementation which is in the form of their organization structure, manpower involved, cost allocated and standard guidelines for the implementation that they posses.

### **Keywords**

Project management, Small contractors, Malaysia, Better understanding

### **1. Introduction**

Project management is the application of knowledge, skills, tools and techniques to a broad range of activities in order to meet the requirements of the particular project. A project is a temporary endeavor undertaken to achieve a particular aim. Project management is concerned with the overall planning and co-ordination of a project from inception to completion aimed at meeting the client's requirements and ensuring completion on time, within cost and to required quality standards.

Project management is actually not just about time, cost and quality. It is almost impossible to achieve the triple objectives at the same time in a project. "The triple objectives of time, cost and quality are equally important. What is good and quick but not cheap is not good enough. What is quick and cheap but not good is also self-defeating, On the other hand what is good and cheap but not quick enough will lose out on time and therefore not good enough as well" (Tan, 1996).

In reality it concerns on the role played by a project-based person with cross-functional authority and experience of managing various resources to achieve certain set and stipulated project objectives. Project management is also used to describe an organizational approach to the management of ongoing projects. It focuses critical attention on the interdependent nature of complex tasks; failure to take action in one

area will affect other areas respectively. The application of project management discipline help an organization to meet their customer's need by standardizing routine tasks and reducing number of complex task that could potentially be forgotten. It ensures that available resources are used in the most effective and efficient manner

In construction, a successful project is defined in terms of quality, cost, time and safety. Project management in an approach used to manage works and resources with the constraints of time, cost and performance targets in order to complete a project successfully. Although time and cost may be compromised to produce a quality project, there can be no compromise regarding safety (Tan, 1996).

The major phases of a construction project are project planning, project start-up, project control, project close-out, and post-project analysis. During project planning stage, project manager will evaluate the risks that are associated with the project. Risk analysis and risk management is a crucial skills essential to successful project management. To accomplish this challenging task, the project manager must organize his or her project team, establish a project management system that monitors project execution and resolve issues that arise during the execution. The project manager also develops materials procurement and subcontracting strategies during this stage.

Project start-up involves mobilization of project management team, briefing them on associated risks and conducting team building activities. Project cost, schedule, and quality control system are established to manage the project execution during this stage. The concept of project management is about providing tools and techniques that enable the project team (not just project managers) to organize and control the work to achieve these 3 common objectives.

The circles of project management commence from feasibility study of a proposal until the commissioning the end-products. Project management knowledge would be carried out thoroughly for the whole project process. During the project process, different project management tools may be applied by project team in order to achieve the project objectives.

Thus, this paper is to investigate the implementation of project management among Class F with work under Malaysian Ringgit (RM) 100,000.00 registered contractors in Malaysia.

## **2. Aim of the Research**

The aim of this research is to investigate and identify the implementation of project management skill, tools and techniques used and to compare the different of features being implemented between Class F Registered Contractors in Klang Valley, Malaysia.

## **3. Malaysian Class F Registered Contractors**

In order to enter into contract works, a contractor needs to register themselves with a registry body. In Malaysia, contractors may be able to register themselves with Construction Industry Development Board, Malaysia (CIDB) and Malaysian Registration Contractor (PKK). Malaysia has the highest amount of registered contractors in the world that is with the ratio of 1 to 350 population compare to other country that is 1 to 1000 population. Contractors that are registered under PKK may be classified into 2 main types; civil work contractor and electrical work contractor. Both types may have their own sub-heading of registration and may have different scope of works (which may be discussed further in section 3.3 in this chapter). It is reported that, Malaysia has the highest amount of contractors in the world which the ratio would be 1 to 350 populations compare to other country that is 1 to 1000 populations.

The Government of Malaysia had allocated RM 1.5 billion worth of work for small scale contractors especially class F under RMK-9. This opportunity had become catalyze for class F contractor. They

manage to participate in contract works after a terrible wave of Asian economic downturn. Previously, due to excess class F contractors, contract works was offered to contractor by ballot. Unlucky mean no job. But now, they manage to get project easily if they are among active contractors.

All of this sort of opportunity will help them do develop. Management is also a crucial aspect of success for all contractors especially for small scale contractors. Most of class F contractors are form by a single person organization or small company organization. Due to this management structure, they rarely perform professional project management skills in their project organization. Although the government had help in providing seminar, but most of the program was on building construction method. They prefer to perform in a traditional project management skills which are their comfort zone. Due to this, the quality of this profession is said to be low.

This research is actually conducted to critically analyze the amount of contractors that perform professional project management and how they do it. This is because; project management is the only way to improve their quality of work other than being affected by surrounding and waiting for the unknown opportunity.

#### **4. Analysis on Findings**

Questionnaires survey was sent to (100) contractors Class F registered under the Centre Services of Contractors in Klang Valley, Selangor. It was found that all of the respondents understood clearly about project management because they had undergo training organised by the centre or Malaysian Construction Industry Development Board (CIDB).

Eighty four percent (84%) respondents agreed that the implementation of PM in the project were important and most of the contractors already realize the importance of the implementation of PM skills, tools, techniques and knowledge in their business. They applied PM skills, tools, techniques and knowledge appropriately in the project that they carried out and as a whole in the management of their organization. Thirteen percent (13%) respondents confirmed of using the cash flow projection as the PM tools, followed by Gantt chart, project activity flow chart and organization

Facilities management, fast track implementation, total project management, multi level project scheduling, and emotional intelligence are among the lowest percentage which received three percent (3%). MS ISO 9000, cost benefit analysis, cost effectiveness, matrix chart, effective problems solving approach, and effective decision making process were among the PM tools that had never been applied by the contractor. This type of PM tools is actually applied only by higher class of contractor such as class A. Class F contractors usually applied PM skills, tools, techniques and knowledge throughout the whole project process. This is because they realize the advantages through the implementation of such system; they'll manage to obtain easement in flow of the project execution.

Thirty one (31%) of the respondent implemented PM throughout the whole project process. Twenty three (23%) of them implemented PM during planning process and off-site construction management. Seven (7%) percent confirmed that they implemented PM during design documentation. An average sum of USD 15,000.00 was said to be required for contractor to implement PM tools in their projects which were considered quite high.

The results showed that the highest numbers of personnel require is about 9 persons while the lowest numbers is about 2 persons. An average of 4 persons will be required for the implementation of PM in their projects. Therefore, class F contractors will require a higher number of professional personnel for the implementation of PM in their projects. They agreed that through implementation of PM in the organization, they would manage to obtain easement in flow of the project execution.

All respondents agreed that implementation of PM would help in the reduction in project duration, reduction in project cost and enhancement of quality in the construction respectively. Through good implementation of PM, it was observed that they may have a smooth flow in their project execution which is at the same time will be able to reduce time and cost.

All respondents verified that they did not have a big and complex organization. This shows that they were usually consist of a small and simple organization which in turn might become a constraint to perform PM professionally in their organization. Twenty four (24%) percent of the respondents stated that their organization consisted of general workers, project manager and clerical, respectively. The lowest percentage is four (4%) percent that is for position as quality controller. This information denotes that their organization is a simple organization and the role played by the project manager usually will be the same person that holds responsibility as the company managing director.

Most of the contractors applied and comply with the controlling bodies such as PKK and CIDB in implementing PM in their projects. Another most common PM tools used by them is the cash flow projection, Gantt chart, project activity flow chart and organization chart. These are actually a common PM tools being applied by the whole construction community because it is a very well understood and easily acceptable communication tools by the community.

Facilities management, fast track implementation, total project management, multi level project scheduling, and emotional intelligence are PM tools that class F contractors rarely apply due to cost limitation and manpower requirement. They usually carry out work of value in the range on RM 10,000.00 to RM 200,000.00. Thus, for them, it is unworthy to spend a lot of money just for small work of that range. Implementation of that kind of PM tools requires high overhead cost and detail planning. If they allocate high cost just for the PM for the project, they may lose in tendering stage due to competitiveness.

They may have a smooth flow in their project execution which in turn at the same time will be able to reduce time and cost. The cost involve in implementing PM in class F contractor's organization is in the range of RM 5,000.00 to RM 150,000.00. The cost incur for the implementation of the system is quite high actually for the small scale contractors like them.

Fifty three (54%) percent of the respondents verified that their company has standard guidelines and methods for PM. Whilst forty eight (48%) percent of them do not have standard guidelines or methods for PM in their organization. They may be able to practice PM in their project properly and in accordance to their own standard through the implementation by the said guidelines.

Sixty four (64%) percent of the respondents stated that they do not have any experience being as a sub-contractor. The main issue that they realized that as a sub-contractor is about payment system by their employer. The concept 'umbrella' is their main problems in implementing PM in their project. This is due to delay in payment by their main contractor and it would cripple to implement PM due to the limitation in cost.

Respondents were asked on their opinion on the reason why some of class F contractors fails to implement PM in their projects. Among the reasons why they neglect to perform PM in their project is because they have less interest to maintain quality in their job as they think that they can easily get job from the government and they do not have to struggle to maintain the quality of the end-product as they may get job through ballot system easily. Furthermore, they thought that it is not worth to practice PM in total in their project as the value of their work is small compared to higher class of contractors. This is because the cost involves in implementing PM in projects was said to be about 30% of the total work value which is quite high for them.

It is suggested that the contractors need to participate as an active contractor by participating in PM seminars, talks, courses or others as to increase their knowledge and to reconstruct their mindset in term of cost limitation. They need to realize that the global competition due to globalization will at the end become a problem to them if they fail to perform PM skills, tools, knowledge and techniques in their business.

## **5. Conclusion**

Based on the data, it can be concluded that all of the contractors has a basic knowledge and understanding on project management skills, tools, techniques and knowledge. It is a standard requirement to become a contractor where they need to undergo training program regarding project management and other related matter as organized by common controlling bodies. They also understand the consequences if they failed to perform any job as given to them in a proper manner and with that they need to implement project management knowledge in their projects. They apply PM skills, tools, techniques and knowledge in their organization thoroughly. Class F contractors actually implement PM in their organization especially for project execution. It is just that they implement it in a not formal ways. Besides, the implementation is unforeseen due to the value of work that they carry out is very small.

Each class F contractor's company has their own company organization structure. Some of them have quite big organization but some of them may only consist of 2 to 3 person's organization. Some of them consist only of project manager, clerical and general workers. But some of them include a separate quality controller which is actually may be consider as more organized in term of the whole organization management.

Some of class F contractors have their own standard guidelines for PM system in their organization. While some of them do not have that kind of guidelines which require high discipline level and high cost for the implementation of it. The one that posses such guidelines would likely implement PM in their projects, but still not in a formal ways, actually.

Another difference in the features of PM skills, tools, techniques and knowledge implemented is in the form of their experience as sub-contractor. Some of them have not experience being a sub-contractor. While some of them had experienced became a sub-contractor. The problems for them to implement PM in their projects during their involvement as a sub-contractor arise when the main contractor fails to pay appropriately for their works. Issue of delay in payment had become a 'tsunami' for them to abandon the project if the main contractor also at the same time fails to execute the project properly due to lack in project management skills.

It was found that, there are various differences in their implementation. Basically, the differences is in the form of their organization structure, manpower involved, cost allocated and standard guidelines for the implementation that they posses.

## **6. Recommendation for Future Research**

It is suggested that the contractors need to escape from their comfort zone of not-implementing project management system in their organization to become more regular with the system. They need to realize and acquire a better understanding on project management system. Through the implementation of such system it will be able to assist them in the success of any project that they executed from all aspects and concurrently will be able to improve the growth of our nation's construction industry as a whole.

In order to encourage the small scale contractors to implement project management in their organization, the controlling bodies must play their role as to provide assistance in term of providing training programmes that relate with the project management system.

The Government sector must take precaution in term of giving tender to class F contractors. Usually, tenders for projects were procured by the class F contractors by means of ballot system. This system nowadays had become a plague to them as some of them can easily sell the projects in which they obtained through the ballot system to another contractor.

This is actually had lowered down the level of professionalism in our construction industry. The government must create a system that able to identify and keep records for all contractors in order to identify active or non-active contractors. Tender for projects should be given through this kind of system to the active contractors. Furthermore, the government must regulate a restriction as to enforce them to implement at least basic project management system in the project that they carried out as to encourage them to practice and apply project management system in the projects.

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