

# **ORGANIZATIONAL PROJECT MANAGEMENT MATURITY FROM THE CONSTRUCTION PRACTITIONERS POINT OF VIEW**

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The organizational project management maturity model (OPM3) aims to implement project management principles into project-based organizations. In fact, OPM3 by focusing on organizational level, can help construction companies to integrate their various activities and follow their goals strategically. However, this useful tool has not been recognized by most of the Iranian construction organizations. The purpose of this research is to introduce OPM3 to the experts and collect their views on how it can be implemented in their projects. First, the concept of OPM3 introduced to participants. To reach this aim, 52 questions were selected from PMI self-assessment questionnaire. These questions were categorized under four groups of planning, performance, procurement and prediction. Interviewees answered each question with Yes and No and then scores were added up in each group. At the next step, based on maximum and minimum score of groups a qualitative interview was carried out to understand reasons behind scores attained by interviewees. Identifying detailed elements can enhance the Iranian practitioners' understanding about OPM3 and help them to apply it to their organizations in Iran's working conditions.

*Keywords:* Iranian projects, Maturity assessment, OPM3, Construction organizations.

## **1 INTRODUCTION**

There are several obstacles in the way for executive managers to review their strategies in order to comply with the expectations of stakeholder and supply the needs of the market. These barriers include the change towards improvement, complexities in economy and worldwide competition. The low rate of efficiency in construction, the overuse of resources and the small amount of output of the working are the reasons to this phenomenon (Guangshe *et al.* 2008). The low profit rate of investments in Iran's construction industry is the consequence of weak management practice. Hence, project managers are in need of improving organizational project management practice. As a result organizations must find a way through a project-oriented view to turn strategy into organizational success (PMI-OPM3 2013).

Organizational Project Management Maturity Model (OPM3) is the tool to execute strategies that converts the project, design and portfolio processes into high-quality, stable, repeatable, and predictable output. OPM3 serves as a milestone to evaluate the maturity of companies in Iran and it presents guidance for the improvement organizational project managing in organizations. This article, after introducing

OPM3, will look over measuring the maturity of organizations and identifying the contributing factors in organizational project management maturity.

## **2 WHAT IS OPM3?**

As a developmental model for organizational project management, this standard is presented by Project Management Institution (PMI) in 2003. This model is flexible and executable for projects of various scales and supports all sorts of institutions regardless of their size, complexity, geographical situation, age, or their level of maturity (PMI-OPM3 2013). Organizational maturity refers to readiness and experience of staff, processes, and technologies which are measured continuously. The improvement element in OPM3 differentiates this model from all others. This element paves the way for the organization to reach maturity by gathering organization information.

## **3 A LOOK OVER THE PREVIOUS PROJECTS**

A series of interviews with experts and then evaluating with the Principal Component Analysis (PCA) system, done by the Qi *et al.*, 2014 research group and their colleagues, fourteen effective factors in project management in construction companies are identified as follows: management by stakeholders, handling the flow of information inside the organization, coordinated decision making in the organization, coordination between portfolios in order to achieve organizational strategies, controlling the timeline schedule, capability in quality management, coordination of the project team, capability of safety management, capability of contract management, capability of understanding the market, managing the financial aspects of the project, dedicating resources, capability of managing the project limitations, and foreseeing and management of risk. The most important effective factor is contract management and the least important factor is market understanding. The above items are categorized in four groups of Planning, Performance, Procurement, and Prediction (Qi *et al.* 2014). Experts were asked to point out the advantages and disadvantages of each of the fourteen factors and the results are as follows. The most important factor in stakeholder management is identifying the stakeholders. Controlling the critical ways are noteworthy in timeline schedule managing. In quality management, controlling the quality is deemed most important. Recognizing the weak and strong points of each staff member is viable to the coordination of the project team, just as reviewing and improvement of the system is an effective matter in safety management. Respondent did not had enough knowledge to answer risk management matter in regards with organizational maturity management, and there was no evidence of any common ground with contract management.

## **4 RESEARCH METHOD**

This research uses OPM3 as an evaluation method for organizational maturity. As suggested by PMI, 151 questions are presented for self-evaluation. The self-evaluation questions in this article are based on the four categories of Planning, Performance, Procurement, and Predicting (Qi *et al.* 2014). After categorizing the questions in these four groups, a minimum and maximum of score was appointed for each category. In the first step, a limited number of questionnaires were distributed between experts.

Before handing the main questionnaire to high level managers, they were piloted, tested and corrected. There needed to be an informative approach towards the interviewee, due to the lack of knowledge about the maturity model. Therefore, prior to the questioning, they were presented with enough information about the model, and then they were asked to thoroughly introduce the organization in order to have an organizational structure in terms of project, program and portfolio which led to having a better understating of the mission, vision and the fundamental values of the organization as well as its strong and weak points. The third step, was asking the interviewees to answer the yes/no self-evaluating questions. In the next step, after calculating the scores, a set of deeper questions were asked in accordance with their scoring of the four categories and the resulting answers were analyzed in terms of quality and briefly presented.

## 5 INTERVIEW RESULTS

Although the standards of this model are well accepted and they are more known than other forms of maturity model (Ghoddousi *et al.* 2011), there is not enough knowledge about this model and most of the managers provided with the model and having been explained to by a researcher, still feel the need to be presented with a pre-executed plan in other organizations, which unfortunately does not exist. Therefore all interviewees showed great eagerness to find out the result of this model in their own organization.

Table 1. Score of interviewees on each category.

Interviewee code	Experience (year)	Planning	Performance	Procurement	Prediction
I1	30	8	4	8	11
I2	17	8	11	7	8
I3	19	7	6	8	10
I4	11	9	9	9	12
I5	15	7	4	6	9
I6	7	8	9	8	10

### 5.1.1 The analysis of the collected data

The results derived from interview are presented in four groups. Detailed analysis is provided below.

### 5.1.2 Planning

Strategic planning is a type of long-term programming. I4 with the highest point thinks of programming as “doing things today for a better tomorrow to come” because of this belief that “the future belongs to those who are able to make difficult and strategic decisions today.”

It may be right to believe that survival in the insecure and competitive environment of today has made organizations try to recruit professionals and experts. Organizations highly depend in their success on those forces who step beyond their occupational duties. There are a lot of role-playing elements leading to this behavior. Those include job promotion, energy, and encouraging a sense of capability which lead to a boost of

spirits and efficiency in the staff. Most of the interviewees believed that aside from corruption, promotion is given only based upon one's own talents and capacities. Interviewee no. 4, with regard to their experience working abroad, recommended that there is a need for designing an evaluation system which is capable of studying one's operation for a possible promotion half-yearly, or annually, and in a three-level basis of their self-evaluation.

It should be noted that knowing those on-job learnings bring value to the organization and could help make a change and improve, or avoid making the same errors and mistakes over again. Every organization is to keep a record of their failure and success stories of the past and review them, they as well should learn lessons from them in a systematic fashion, so that all employees can fathom and have access to them. According to the questions raised in this section, interviewees I1 and I5 believed that due to the traditional structure of the company, exchanging experiences is done orally, but the interviewee I3 emphasized on written recording of data in governmental projects. Interviewee I2 believed that the records in their private company, in addition to economic profitability, had an impact on reduction of project time. I6 also emphasized that public and technical information is recorded both in written form and electronically. Interviewee I4 suggested software which helps to record data, based on his past experiences.

In addition to the above-mentioned points, it is important to optimize the communication system in organizations. If there is no proper communication in an organization, it will stop functioning well and everything will be disorganized. I5 believes that open communication depends on the circumstances, the type of project, and its runtime. For instance, hierarchical organizational structure is important in simple projects and open communication is effective in complex ones. Other interviewees supported open communications because they believe it will save time.

### **5.1.3 Prediction**

In this section, I2 interviewee scored last because he considered his organization low self-esteeming in the section related to the prediction, which was categorized according to Qi *et al.* (2014). Another factor in this part is the organization's strategy to maintain internal and external sources. An efficient organization is an organization that achieves its aims through meeting the demands and needs of stakeholders, balancing resources and flexibility towards environmental changes and encourages commitment, creativity, shared values and mutual trust. These strategies deal with processes as well as the structures or systems and in a way preserve source in the organization. Given the importance of maintaining internal and external sources for the organization, the management should strive to make huge investments on this strategic source. According to the interviews, senior director I6 believes that the layout of the system and good job promotion maintains internal sources and assessing and rating the performance of contractors, maintains external sources. I2 believes that to protect foreign sources, the best way is to preserve internal sources that the organization, due to economic problems, does not pay much attention to.

### 5.1.3 *Procurement*

Procurement means goods or services provision from external sources. It can be said that communication with external sources need that new management practices replace traditional ones. According to I4, one of the urgent needs in order to support this successful trend is the implementation of new methods of project management, and creating scientific sources and references which managers need. One of these sources is PMBOK which reflects the knowledge of project managers and presents project management principles in a way that can be used in wide range of projects. Investigations done in this study shows that all the interviewees see their organization in need of project management knowledge guidelines before implementation of the maturity model, while this knowledge is not clear for managers in practice.

### 5.1.4 *Performance*

One of the most important items from the interviewees' point of view is the direct influence of senior managers of the projects in order to evaluating the performance. Due to cultural matters, the personnel in are not placed in their own position as asserted by the organization. So the roles in the lower levels may have contradiction with the senior managers because of having more experience. According to interviewees I1 and I5, senior managers interferes in lower levels because of the traditional way of thinking and believe that in order to more control of the expenses, there is the need of senior manager's role. However, I6 opposed the role of direct interference of the senior managers with the project management, because he emphasized that in the sessions with project managers, they only have general information about the projects and their interference may prevent the temporary progression of the project which in turn leads to delay in its total progression.

Project control is a process going in the direction of maintaining the project route in order to gain a justified economical balance among three factors of cost, time and quality while project execution. In fact, the control is the complete and exact administration of the program for the project in a way that by recognizing the causes, it can be returned to its original path in a closest possible condition. In this context I6 stated that, all of the project levels are gauged by base lines and standards. I2 and I3 pointed to the project control by an independent unit. I4 believes that control in this company is mostly on the expenses of financial resources.

Quality control is also related to the study of performance and the level of this value is implicitly determined by the agreement between customer and the suppliers. Reaching to a high quality by standardization is one of the effective factors in organizational mature model. According to the interviewees, in Iranian companies there are quality control teams which act separately from the company. I2 believes that because of the friendly relationship of employer and the consultant the matter of quality is frequently ignored. I1 says that only in public projects the quality is checked.

Standard is a criteria for evaluating the function of the devices, workers and managers. It is also a criteria for recognizing skills, educations, specialties, equipment and required technologies. According to the interviewees all of the companies follow the available standards, however, I2 and I6 felt more required to obey standards because of administrating governmental projects. I1, I3, I4, and I5 believed that

standards were mostly followed in designing phase up to the confirmation of the relevant authorities, but after that, because of the friendly relationship with the employer and the presence of the difficulties in cultural and economic infrastructures, most of the standards were ignored.

## 6 CONCLUSIONS

The construction industry plays a basic role in economic development and social relationship. On this basis, OPM3 model is considered as a tool to reach this strategic goal of the organization. According to studies on this subject, the most important barrier against the recognition of factors affecting organizational maturity in Iran, are the lack of information and the avoidance of the organizations in the matter of presenting the organizational internal relationship. Following the effort to recognize more effective factors, cases such as: standardization, quality control after standardization, recording taught lessons from the project, the strategy for maintenance of internal and external resources, upgrading the job level of the employees, the existence of open relationship at all levels, the amount of senior manager's interference in project management, application of PMBOK and the control administration were pointed to. But to administrate the above mentioned cases, obstacles such as the lack of economic and cultural infrastructures, administrative corruption, the existence of too traditional point of views to accept the systems and models of improvement and at the end, the lack of sufficient information to manage the project were recognized. According to this study, it is proposed that, apart from their age, experience and the number of their projects, try to adapt the management maturity model. This can be also applied to new companies with short history and is considered as the secret of their future success in national and international environment.

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