

IPMA DELTA® Model in Adaptation for Determining Organization Needs in Using Project, Program and Portfolio Management Methods

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The article analyzes the possibility of using the model of organizational and technological maturity of the company in the field of IPMA Delta® project management for self-assessment and determining the needs of the organization in the use of project, program and portfolio management methods.

Keywords: IPMA Delta model, project management, program management, portfolio management, process management, maturity assessment.

Introductory part. When deciding on what aspects of project, program or portfolio management it is necessary to develop, international expert organizations (such as IPMA, PMI, APMG, etc.) recommend a comprehensive analysis of the current development status of project-oriented activities in the organization.

IPMA created a multidimensional model for assessing the development of project activities - IPMA Delta® [1]. In accordance with this approach, the content of the internal audit modules of the current state is assessed:

1. Competence of project managers (programs and portfolios), team members and other interested parties («Personnel» module);
2. Application of the project approach in the organization, results of projects, programs and portfolios, existing regulations for the processes of managing projects, programs and portfolios (Module «Projects»);
3. The competence of the organization in the formation of a project-oriented management structure (Module «Organization»).

The content of IPMA Delta® internal state audit modules is based on project management standards, such as IPMA Individual Competence Baseline® (ICB version 3.0) – «Personnel» module [2], IPMA Project Excellence Baseline® (PEB version 1.0) - module «Projects» [3], IPMA Organizational Competence Baseline® (OCB version 1.0) – module «Organization» [4].

Thus, the presented model allows us to understand the actual state of the organization's competence in the field of project, program and portfolio management in relation to international best practices, as well as to plan measures for the further development of the organizational environment for project, program and portfolio management.

Main part. An analysis of the contents of the IPMA Delta® assessment model showed the importance of meeting the organization's initial requirements for a full assessment. The initial requirements include the availability of project (program, portfolio) management, the availability of standards, structures, processes, tools and methods for project management (programs, portfolios), the presence of trained and certified specialists and company managers in the field of project, program and portfolio management.

Relevant requirements also apply to national / international certification authorities and assessors.

In order to decide on an assessment of the organizational and technological maturity of a company in the field of project, program, portfolio management, it is initially necessary to assess the organization's needs in the use of project, program and portfolio management methods.

Taking into account the standards in the field of competence of the organization in project management (OCB version 1.0), the competence of participants in management teams and stakeholders (ICB version 3.0), application of project management (PEB version 1.0), we structured a questionnaire that allowed us to conduct a self-assessment cut of the current state the needs of the organization in the use of project, program and portfolio management methods (Table 1.1).

Table 1. The structure of the self-assessment form of the maturity of project, program and portfolio management processes in the organization [2,3,4]

Sections	Subsections
MANAGEMENT	Mission / Vision / Strategy
	Efficiency and Operativeness
	Organizational structure
	Culture
	Leadership and Teamwork
	Development
PROCESSES	Making Decisions
	Project and Program Management Processes
	Portfolio Management Processes
	Integration and Coordination
	Collaboration and Contracting
	Reporting and Documentation
HUMAN RESOURCES	Managerial Competencies
	Functional Competencies
	Recruitment
	Competency Development
ENVIRONMENT	Human Recourse Management
	Health and Safety
	Purchasing and Logistics
	Systems and Technologies
	Knowledge Management

For each component of the subsection, an assessment is carried out:

1. The degree of maturity of the process "As is" - a description of the current status of the process;
2. The degree of maturity of the "How will" process - a description of the desired status of the process;
3. The degree of maturity of the process "At the best in the industry" - a description of the required status of the process, to obtain a competitive advantage.

Assessment of the degree of process maturity is represented by the following levels:

1. *Zero level* is an incomplete process. In general, the process does not meet its purpose. The results and outcome of the process are absent or impossible to identify;
2. The *first level* is the ongoing process. The process as a whole corresponds to its purpose. Its implementation cannot be strictly planned and tracked. Employees of the organization know that the event should be carried out, and there is a general agreement that this event is carried out, as well as how and when it should be. There are results of the process, which indicates the completion of the process;
3. The *second level* is a controlled process. The process gives results in accordance with the required results, and is also planned and monitored. The results meet certain requirements and standards;
4. The *third level* is an established process. The process is carried out and controlled using a regulated process. Process instances use versions of a standard, fully documented process that are accepted and adapted to a specific situation to obtain a given process result;
5. The *fourth level* is a predictable process. A given process in practice is carried out within the prescribed framework to achieve specific goals of the process. Detailed results of performance measurements are collected and analyzed, which leads to a quantitative understanding of the capabilities of the process and an increase in the degree of forecasting and control of process performance;
6. The *fifth level* is an optimized process. Process performance is optimized to meet current and future needs, and the process achieves its specific goals. Quantitative guidelines (goals) are established for the effectiveness of the process in accordance with the goals. Continuous monitoring of the progress of the process towards these goals is based on quantitative feedback, and its improvement is based on an analysis of its results.

This process assessment scale for the model of maturity levels is presented in the ISO 15504 standard [5].

Based on the summation of the indicators set, the general level of competence of the organization in the use of project, program, portfolio management methods (according to the IPMA Delta® model) is determined [1]:

1. *Uncertain level* - there are no standards, structures and processes. Project, program and portfolio management is characterized by unpredictable and uncontrolled processes;
2. *Entry level* - achievements are at the level of individual employees. Formal standards, structures and processes do not exist, communication is limited to several persons;
3. *Determined level* - there are certain standards, structures and processes that are partially documented, applied (occasionally on individual projects) and communicated to most interested parties;
4. *Standardized level* - there are certain standards, structures and processes that are documented, applied (for all projects) and communicated to all interested parties;
5. *Managed level* - there are certain standards, structures and processes that are fully documented, are applied on an ongoing basis throughout the organization and are monitored by management (full coverage and integration);
6. *Optimized level* - there are all the necessary standards, structures and management processes that are applied throughout the organization, are monitored by management and are constantly being improved. (Figure 1).

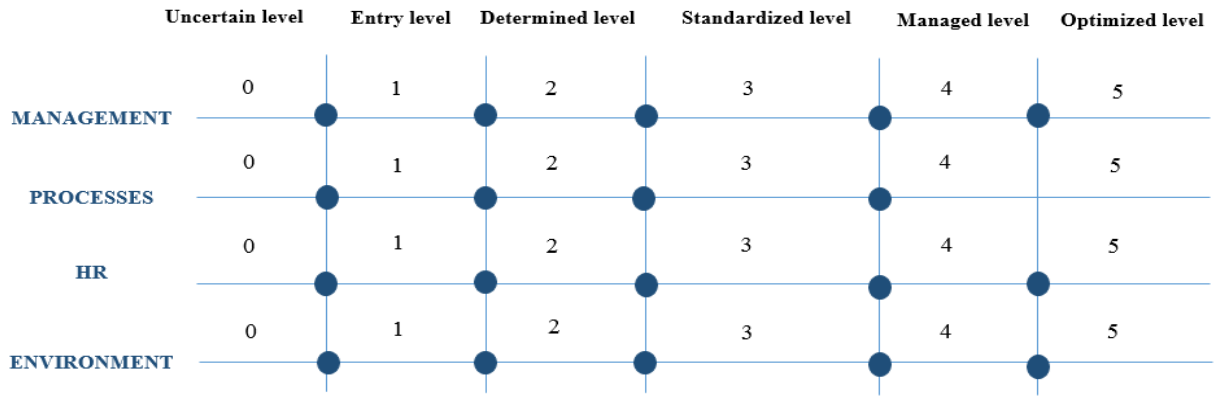


Fig. 1. Determining the general level of competence of the organization in the use of management methods

This questionnaire is intended for senior management, heads of Project Management Offices (or specialized departments for the implementation of project activities), project managers, programs and portfolios, management teams - interested parties that influence the processes of managing projects, programs, portfolios in the organization (Figure 2).

Form of self-assessment of project management processes (programs, portfolios). Version 1.1.

Project (program, portfolio): _____ Date of completion: _____ Filled out: _____

Project Manager (program, portfolio): _____

OCB/ICB	Code OCB/ICB	Description	Process owner	Maturity Assessment of the "As-Is" Process						
				0	1	2	3	4	5	
MANAGEMENT										
ICB	M.01	Mission / Vision / Strategy								
ICB	M.011	Creation of work plans for organization services in accordance with the organization strategy								
OCB	P.1.1	Creation of the mission, vision and strategy of the organization in the field of project management (programs, portfolios)								
OCB	P.1.5	Collection, analysis and evaluation of information related to the mission, vision and strategy of the organization in the field of project management (programs, portfolios), using the accumulated experience								
ICB	M.012	Organizational strategy update and revision								

Fig. 2. An example of the structure of the questionnaire self-assessment of management processes

Since the answers to the proposed questions in the questionnaire can be provided by various specialists, depending on the area of responsibility, before starting work with the questionnaire, the owners of the processes are determined who can fully disclose the presence or indicate the absence of the management process, provide information about the desired state process. For the categories to be evaluated, an appropriate range of rating values is defined (Figure 3).

Form of self-assessment of project management processes (programs, portfolios). Version 1.1.

Project (program, portfolio): _____ Date of completion: _____ Filled out: _____

Project Manager (program, portfolio): _____

OCB/ICB	Code OCB/ICB	Description	Process owner	Process maturity assessment						
				0	1	2	3	4	5	
MANAGEMENT										
ICB	M.01	Mission / Vision / Strategy								
ICB	M.011	Creation of work plans for organization services in accordance with the organization strategy		0	1	3	6	10	15	
OCB	P.1.1	organization in the field of project management (programs, portfolios)		0	1	3	6	10	15	
OCB	P.1.5	Collection, analysis and evaluation of information related to the mission, vision and strategy of the organization in the field of project management (programs, portfolios), using the accumulated experience		0	1	3	6	10	15	
ICB	M.012	Organizational strategy update and revision		0	1	3	6	10	15	
TOTAL SCORE				0	4	12	24	40	60	

Fig. 3. An example of the structure of the range of value estimates

Thus, this approach can be applied to:

1. Definitions of the initial level of development of management processes in the organization;
2. The ranking of processes relative to their development status, allowing you to introduce changes at various stages of the development of processes in accordance with the strategic interests of the organization;
3. Formation of conclusions about the readiness to conduct an assessment of the maturity of management processes in the organization in accordance with international approaches;
4. Formation of preparatory work on the choice of assessing the maturity of management processes in the organization [6];
5. Formation of the initial steps in preparation for certification of the organization in accordance with the requirements of the chosen approach.

Separately, it is worth noting such an option for using this approach, as the application in retraining programs or master's programs focused on managers. In particular, experience has been gained in using the proposed self-assessment methodology for technological maturity of an enterprise in the field of professional project management in implementing an educational retraining program for the specialty "Project Manager in Construction", implemented by the Belarusian National Technical University branch of the Intersectoral Institute for Retraining and Advanced Training. As part of the one and a half year program, this technique is included in the traineeship program. Considering the fact that, in the vast majority, students of the program practice in their own organizations, and, moreover, their graduate qualification works are also aimed at improving the efficiency of organizations that represent students, then conducting such a detailed self-assessment of the organization allows students to better understand the internal organizational environment of those projects in the implementation of which they are involved on a daily basis, and make a serious contribution to the preparation of future diploma work that will be implemented in accordance with the principle of "real diploma about a real project" [7].

Conclusions. Moreover, as practice shows, such an approach is capable, on the one hand, of making a contribution to the educational process, and, on the other hand, of initiating the first real steps to transform the organization's business processes, providing a "low threshold" for starting implementation of project management methods and tools in organizations whose representatives became participants in such a training program. This is partially confirmed by the examples of the fact that some such participants, having carried out such self-assessment as part of the educational process, having started independently implementing the project management methodology in their organizations, subsequently decided on further professional development, including professional certification according to IPMA standards, and not individually, and in group order - increasing the level of technological maturity of the organization as a whole.

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