COMPARISON OF PROFESSIONAL CERTIFICATION SYSTEMS FOR PROJECT MANAGEMENT

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Shangai, 02 de junio de 2012

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Abstract

Certification systems in project management are compared IPMA, PMI, P2M and PRINCE2 through fifteen indicators. These systems have certification processes already established, their own standards and guidelines, and international recognition. The application of the indicators has allowed us to understand the similarities and differences between the four certification systems in project management such as project management that is divided in its guidelines and standards by: 1) competencies, 2) processes and 3) project segments. Thus, IPMA has divided the project management by competencies, PMI and PRINCE2 in processes and P2M in project segments.

1. Introduction

Companies, today, are increasingly using project management to ensure the success of their projects. This has meant that these companies require certified personnel to demonstrate that it has the necessary skills to run their projects.

There are many certification systems capable of providing valid certificates in project management. However, this variety can confuse a candidate when deciding on which certification system he/she needs. Therefore, this paper aims to compare the four certification systems that have a global recognition in the field of project management.

There are several studies on this topic. Among these is the report "Comparison Between BCI and other Project Management Standards" of IPMA where a comparison is made using 9 indicators, of the standards and guidelines of the certification systems IPMA, PMI, P2M, PRINCE2 and AIPM [1]. In the case of this paper, it does not only intend to compare systems at the level of standards and guidelines but to define the indicators, fifteen in total, so as to cover three categories: description of the certification system, certification process and standards and guidelines. The IMPA certification system is no considered because it is a member of IPMA since September 2010 [2].

2. Research Objectives

The overall objective of the research is to analyze and compare the main systems of certification of people and organizations in order to have an international recognition and application, and that belong to the field of project management.

The specific research objectives are:

  • Determine a set of indicators with which it is possible to compare the different certification systems studied.

• Show the main similarities and differences that may exist between the certification systems studied.

3. Research Methodology

In this section, we summarize the research methodology used to define the indicators of this paper.

Table 1. Initial considerations of the research

Factor	Initial considerations
Study Object	Certification systems IPMA, PMI, P2M y PRINCE2.
Delimitation of the Research	It is focused on certification systems of people and organizations in the field of project management that have an international recognition.
Information sources	Primary sources of information were used such as books, magazines, reports and websites. We used secondary sources of information such as libraries and databases.
Research method	The analytical / deductive method was used.
Data collection technique	document analysis was used[1].
Analysis and interpretation of data	The indicators should show relevant information, they can be qualitative or quantitative, easy to understand, they must be aligned to the objectives sought by the research, they should not be redundant with other indicators.

The process followed for the definition by the indicators was as follows:
1. Review of existing information sources.
2. Definition of categories for the grouping of information.
3. Selection of relevant information in every category.
4. Identification of a set of indicators for each category.
5. Development of a legend for each indicator.

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[1] The documentary analysis is a "set of knowledge concerning the principles, methods and techniques to examine, distinguish and separate each of the parts of a document, in order to determine to which category its formal structure, properties and significance of their thematic content belong to," [3].

4. Results

4.1 Indicators

Below are presented the fifteen indicators to be used in the comparison of the four certification systems. The indicators arise from the review of literature on the topic.

Table 2. Indicators

Indicator	Legend
Description	
1. Acreditación of the model	Allows to distinguish systems according to validation processes that have passed: 1) Not certified by any norms 2) Acredited by ISO 17024 norm 3) Certified by ISO 9001 and ISO 17024 norms
2. Levels of certification: number	Difference of the systems according to the levels of certification: 1) Sets two levels of certification 2) Sets three levels of certification 3) Sets four levels of certification
3. Levels of certification: accessibility	Difference the systems in the way they allow to access from one level of certification to another: It is not necessary to have a low level to Access to a higher one. It is necessary to have a certain low level to access the higher ones.
4. Scope of the certification	Difference of the systems as wether applicants can access to certification in: 1) Projects and programs managements. 2) Projects, programs and portfolio management
5. Guidance in the management of projects	Allows the differentiation of the systems according to the way they divide the project management in their guidelines and standards: 1) Per competences 2) Per processes 3) Per Project segments
6. Organization form	Differentiate the systems according to the type of organization the constitute: 1) Confederation of Associations 2) Membership Asociations 3) Agency with acredited training organizations
Certification Process	
7. Model requirements: experience in project	Establishes the level of experience in Project management which are requested to access the process of certification:

Indicator	Legend
management	1) No experience required for any level of certification 2) It is required a mínimum of years of experience for some levels but not for the low ones.
8. Model requirements: training or education required in Project management	Establishes the requirement of training or initial in Project management to access the certification process.: 1) No training or initial education required 2) Training or education required
9. Certification process: Evaluation system	Diferentiates the evaluation systems that make: 1) Only written evaluation (knowledge exam) 2) Written evaluation and face to face interview with the examiners
10. Measurement of experience in Project management	Establishes the unit of measure of the experience in project management required to access to certain certification levels: 1) Experience is not required 2) Years of experience is required 3) Experience in number of projects is required
11. Validity	Diferentiates the systems according to the expiration time of the issued licenses: 1) Licenses of 3 to 5 years 2) Licenses of only 5 years
Standards and Guidelines	
12. Purpose of the guidelines and standards: projects	Establishes if the purpose for which the standards and guidelines have been developed is to provide knowledge and practices for the management of individual projects: 1) It doesn't have guidelines or standards with this purpose 2) It has guidelines and standards with this purpose
13. Purpose of the guidelines and standards: organizations	Establishes if the purpose for which the standards and the guidelines have been developed is to provide knowledge and practices for the management of business projects: 1) It doesn't have guidelines or standards with this purpose 2) It has guidelines and standards with this purpose
14. Purpose of the guidelines and standards: people	Establishes if the purpose for which the standards and guidelines have bee developed is the development, evaluation and certification of people: 1) It doesn't have guidelines or standards with this purpose 2) It has guidelines and standards with this purpose
15. Modification of the guidelines and standards	Diferentiates the systems that permit that their national associations modify a percentage of the contents in the standards and guidelines: 1) It doesn't allow modifications in the standards and guidelines 2) It allows modifications in the standards and guidelines

4.2 Certification Systems of project management

4.2.1 IPMA - International Project Management Association

IPMA is the oldest project management institution in the world. Established in 1965, is a federation of professional national associations of project management [4].

Uses a four-level certification (4-LC) and the professional project management consists of 3 areas with 46 elements of competence [5].

4.2.2 PMI - Project Management Institute

PMI is an association of nonprofit memberships for the profession of project management. Founded in 1969 in Pennsylvania (USA).

Uses a three-level certification and the professional project management comprises 42 processes grouped into 9 knowledge areas and 5 process groups [6].

4.2.3 PM2- Project and Program Management for Enterprise Innovation

P2M is the Japanese version of the project management system [7]. Developed by the Development Committee of the Project Management of ENNA with funding from the Japanese government through the METI [4].

Uses a four-level certification and professional management of projects comprises 11 segments [8].

4.2.4 PRINCE2 - Projects in Controlled Environments 2

PRINCE is a project management method developed in 1989 by the Central Computer and Telecommunications Agency (CCTA) [4]. PRINCE2 was born from PRINCE in 1996 as a generic approach and the best practices applicable to the management of all types of projects [9].

Uses a two-level certification and the professional project management consists of 8 parts and 8 processes [10].

4.3 Comparison of the certification systems in project management

The fifteen indicators listed above were applied to the four certification systems project management, resulting, thus Table 3.

Table 3. Comparison of the four systems of certification in Project management

INDICATORS	IPMA	PMI	P2M	PRINCE2
1) Acreditation of the model	3	3	1	2
2) Levels of certification: number	3	2	3	1

INDICATORS	IPMA	PMI	P2M	PRINCE2
3) Levels of certification: accessibility	1	1	2	2
4) Scope of the certification	2	1	1	1
5) Orientation of Project management	1	2	3	2
6) Form of organization	1	2	2	3
7) Model Requirements: experience in Project management	2	2	2	1
8) Model Requirements: training required	1	2	1	1
9) Certification Process: evaluationsystem	2	1	2	1
10) Measurement of experience in project management	2	2	3	1
11) Validity	2	1	2	2
12) Purpose of the guidelines and standards: proyects	2	2	2	1
13) Purpose of the guidelines and standards: organizations	1	2	2	2
14) Purpose of the guidelines and standards: people	2	2	1	1
15) Modification of guidelines and standards	2	1	1	1

5. Conclusions

1) The certification system is the only P2M of the four systems that do not have ISO accreditation (ISO 17024 whether or ISO 9001) to certify the quality of their processes.

2) The IPMA certification system is the only one of four certification systems in the direction of portfolios. All others, including IPMA system, certified in project management and programs.

3) PEI is the only certification system that allows their national associations modify a percentage of the content of their standards and guidelines to fit the context of each country where the association.

4) The PMI certification system is the only one of the four systems that requires having training or education in project management to access the certification process.

5) The PMI certification system is the only one of the four systems that have standards and guidelines that provides knowledge and practices to individual project management, enterprise project management, and development, evaluation and certification of persons.

6) The PRINCE2 certification system is the only one of the four systems that doesn't aim to develop guidelines and standards to provide knowledge and practices for management of individual projects.

7) PRINCE2 is the only certification system that does not require applicants to have experience in project management to access any level of certification. All others require a minimum level of experience according to the level they are applying to.

8) The certification system PRINCE2 only has standards and guidelines that provide knowledge and practices for the management of business projects.

9) The certification systems PRINCE2 and P2M require the possession of a certain low level to access the upper levels. In the case of PRINCE2, the level PRINCE2 Foundation is the lowest level and in the case of P2M, the PMS level.

10) The certification systems PMI and PRINCE2 use the written evaluation, in other words a knowledge test as the only means of evaluation in the certification process. Instead, the IPMA and P2M certification systems, apart from the written assessment use the oral assessment (interviews). This allows both IPMA and P2M assess the development of the participants in front of a group of evaluators, as well as contrast their theoretical knowledge with the practical ones.11) The certification systems IPMA and PMI are the only ones who have standards and guidelines that describe the skill requirements for a project manager.

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