Methods of Modeling of Managers' Competences in The Context of Sustainable Development

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Abstract

The factors influencing the formation and management of international teams of project managers in a multicultural environment are analyzed. The main problems in managing communications in international projects that are directly related to the human factor are identified and the existing approaches to solving such problems are analyzed. The set of key competences of project managers of international teams in a multicultural environment, which distinguish successful project managers, is defined. An approach to the development of project managers working in international teams in a multicultural environment has been developed taking into account the development of competences that determine a successful project manager.

Keywords: sustainable development, competence, manager, team, communication management.

Introduction

When forming and managing the team of project managers, these differences have a direct impact on the communication processes and interactions of the project team. As a result, this can negatively affect the success of the project as a whole, as well as the satisfaction of team members since errors and misunderstandings in communications, lead to a low level of trust and motivation in the project team.

Humanization involves increased attention to the individual as a whole, the creation of the most favorable development of its abilities, physical, and moral qualities.

Modern education aims to form an ecological and economic responsible person, ready for the conscious activity on the basis of acquired knowledge and established standards and rules of behavior in relation to the environment in the conditions of sustainable development.

Forming and managing the international team in a multicultural environment require harmonization of the competences of team members both cross-culturally and professionally, based on scientific methods and approaches. All this determines the relevance of the research topic.

The purpose of the research is to develop models and methods based on competences aimed at the cross-cultural development of the project managers of international teams in a multicultural environment and balancing disagreements and misunderstandings in cross-cultural communications, ensuring the success of the project.

Literature Survey

The application of the competence-based approach is becoming increasingly common in project management practices, in particular, professional standards, since project managers are increasingly paying attention to the importance of this concept (Meng, X., & Boyd, P. (2017)).

The competence language is used in many organizations as the basis for personality characteristics (Putri, K. D. C., Sari, M. M. R., Ramantha, I. W., & Budiasih, I. G. A. N. (2019).

The concept of the competence is used and formed in accordance with the role that the individual performs; and is also considered useful for improving staff productivity when used for assessment, training, and other processes related to staff (Ahmed, R., & Anantatmula, V. S. (2017)).

Competences are key elements in the following cases: high-quality job descriptions, development of methods and criteria for selecting employees; staff productivity management; development of methods and tools for personnel assessment; description of processes for assessing individual competence and results; elaboration of staff development programs (Engelbrecht, J., Johnston, K. A., & Hooper, V. (2017)).

In general, the use of competence modeling as a method for assessing, training, and developing competences is a common practice in the field of Human Resource Management (HRM), science, which studies recruitment, distribution, development, leadership, retention, and dismissal of staff (Medina, R., & Medina, A. (2017), Rasnacis, A., & Berzisa, S. (2017)).
In the so-called competence models, competences are structured in a hierarchy or grouped in clusters with descriptors (Aragonés-Beltrán, P., García-Melón, M., & Montesinos-Valera, J. (2017)).

There are three types of sources for obtaining data for creating the so-called competence models: panel discussions and focus groups with experts in this field (Gunawan, J., & Aungsuroch, Y. (2017)); interviews about significant events with highly qualified specialists (Banihashemi, S., Hosseini, M. R., Golizadeh, H., & Sankaran, S. (2017)); general competence dictionaries (Maqbool, R., Sudong, Y., Manzoor, N., & Rashid, Y. (2017)).

There are a number of behavioral competences, or the so-called soft or flexible skills, which allow applying innovative approaches in situations where people have their own solutions to existing problems (Pinto, JK, Patanakul, P., & Pinto, MB (2017)).

Interpersonal competences are a trend of the future and part of the path to success.
Project management is an area where professional standards are actively used, in particular: ICB, PMBOK, PRINCE2, P2M, AIPM, and the like. Let's consider the concepts of "competency" and "competence" in these standards and the approaches available for managing international projects in a multicultural environment (Varajão, J., Colomo-Palacios, R., & Silva, H. (2017)).

ICB (Individual Competence Baseline) is a standard on the basis of professional knowledge and a system for assessing the competence of project managers (Radujković, M., & Sjekavica, M. (2017)), which is issued by the International Project Management Association (IPMA).
The authors summarize the analysis of the competence-based approach used in professional standards for project management. A competence-based approach is also experiencing fundamental difficulties.

First of all, it is necessary to clearly define a common understanding of each competency that needs to be developed and implemented between different departments or even organizations (for competences independent of organizational structure) (Artz, B. M., Goodall, A. H., & Oswald, A. J. (2017)).

Secondly, at the technical level, the various systems and services involved in personnel management, training and knowledge management must be semantically aligned so that competence-based approach es can meet their holistic expectations (Davis, K. (2017)).

Finally, compensation is crucial in competence modeling: more accurate, realistic, and well-defined competences become more complex management and control tasks (Ha, T. P. T., & Tran, M. D. (2018).

Methods

The theoretical basis of the study includes the scientific works of scientists in the management of international projects and programs. Theoretical research was based on the use of system analysis methods, set theory methods, as well as the methodological base of standards for project management, and international management and cross-cultural communications theories.

To verify the obtained methods and models and practical confirmation, pilot training for teams of young project managers originating from different countries and cultures was conducted in Germany and Belgium.

Results

Successful management of multicultural projects requires solving numerous challenges: legislative and political environment, security issues, economic factors, infrastructure limitations, and the like, which are unique for each country.

However, the human factor and communication management are the most important factors affecting the success of such projects. In general, cultural misunderstandings are caused by the fact that a message is composed, or "encoded" in one cultural context, sent, and then received or "decoded" in another cultural context.

Cultural beliefs and rules lead to behavioral differences. For example, in some countries, a certain model of behavior may be considered a manifestation of politeness, while in others it is quite the opposite.

There are also various cultural beliefs about informal communication at work. Some cultures tend to exclude informal communication, and some cultures view informal communication as part of business ethics. Various measurements of behavior such as space, touch, and eye behavior, form another cluster of cultural patterns that can cause conflicts and misunderstandings.

Hierarchical structure is a common tool in project management practice, which are used to distribute the logical components of large arrays of project elements to be managed. For example, common breakdown structures are the project work breakdown structure or the hierarchical structure of the project's organization (English, "organization breakdown structure").

The competence breakdown structure method is based on the generally accepted project management approach, which allows structuring a complex system into smaller manageable elements. The competence breakdown structure method allows detailing the concept of the competency, despite the approach to the use and determination of the concepts of "competency" and "competence".

The competence breakdown structure is a method that decomposes the concept of cross-cultural competence into smaller elements in their original form. In other words, competences related to cross-cultural development, are divided into sub-competences in several approaches to the desired degree of detailing. When applying this method, an international project team led by a specialist independently determines important competences and sub-competences, which are referred to cross-cultural relations and communications, enriching with specific finds, formalized during interactive discussions in cross-cultural training. This method helps to visualize the competences that will be developed by the project teams during the introductory phase of the project (cross-cultural training).
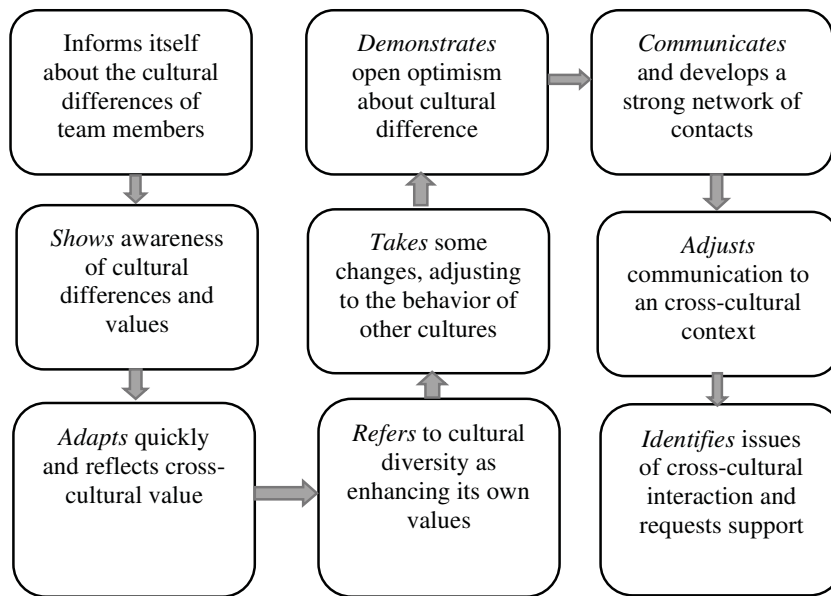
Figure 1: Cross-cultural profile of the manager competences (author's development)

Thus, the competence breakdown structure method provides the basis for self-reflection and focused development. The structure of breaking down the competences into subcompetences is also an approach to visualizing problems and suggestions that can be discussed on a virtual social platform.

The competence breakdown structure method offers a communication strategy for project team members on the basis of their own personal qualities and advantages, which is also the cause of misunderstandings in international teams. Thus, a basis for the joint contribution of the project team members, which is aimed at mitigating and preventing conflicts, is formed.

Given this statement and analysis of the literature conducted within the framework of this scientific work, a method that is called the cross-cultural profile of competences (Figure 1) for the formation of cultural consciousness and interpersonal interactions in international project groups has been developed.

The competence profile, that is, the set of competences of an individual, is tailored to predefine personal and organizational goals and has a unique form in each international project team.

The cross-cultural competence profile reflects the goals of the project team development, which are aimed at the results of individual development, motivating team members to change their behavior, attitude and development of self-esteem and motives that are more difficult to train. It offers a common language and a basis for self-reflection and self-improvement; provides a point of reference for team building, trust management, prediction of cross-cultural misunderstandings and motivation for personal development of cross-cultural competences.

The proposed sample of cross-cultural competence profile (Figure 1) aims to encourage project managers to plan and facilitate the process of cross-cultural development within multicultural groups.

However, this list may be expanded or reduced depending on the team characteristics (size, cross-cultural background) and the amount of time that can be devoted to the cross-cultural development of the project team, etc. The cross-cultural competence profile is subject to further breakdown. Each element of the cross-cultural competence profile contains sub-competences that explain the effectiveness detail.

Figure 2 shows sub-competences that contain specific examples (A, B, C, ..., N, M, N, etc.) that are relevant to the project team. Sub-competences are flexible elements that are initially prepared by the project manager, project office, or cross-cultural experts.
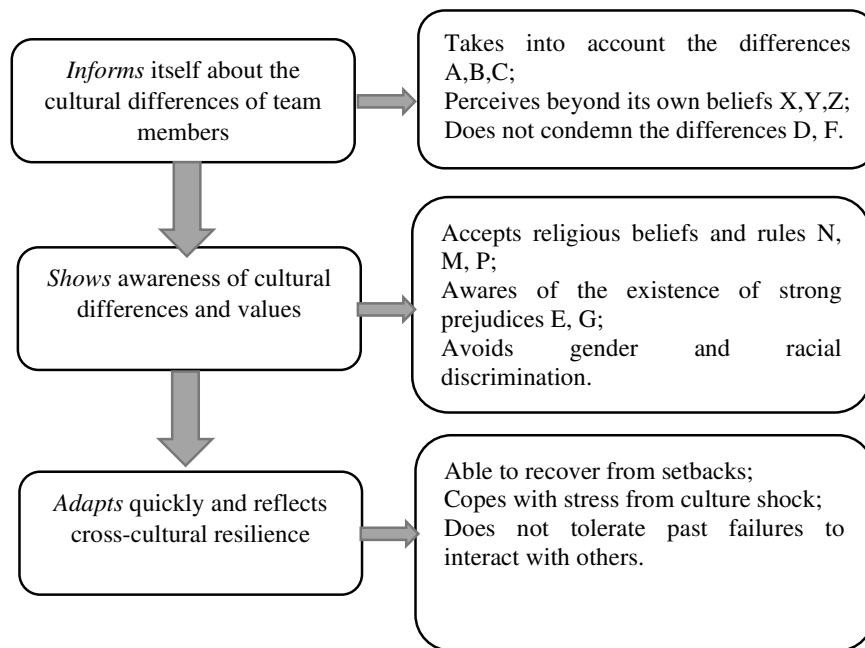
Figure 2: Model of sub-competences of international manager profile

(author's development)

During the kick-off meeting, the project manager can initiate a discussion and update elements and sub-competences based on project members' proposals. Thus, the cross-cultural profile of competences serves as a reference point for developing basic rules based on the multicultural specifics of the project team. During the implementation of the project, an updated and documented cross-cultural profile of competences should be disseminated and, in the future, serve as a point of discussion for identifying and updating cross-cultural differences and compromises. At the final project stage, the cross-cultural competence profile can be easily documented in the form of lessons learned from the project.

The main advantage of the cross-cultural competence profile is that it serves as one of the main success factors for each project, that is, the satisfaction of interested parties. The implementation of this method is aimed at predicting cross-cultural misunderstandings, preventing incorrect communication, and delaying information flow in the project.

The disadvantages of applying the cross-cultural competence profile can be, for example, cases when, in task-oriented teams, people do not want to waste time using such tools.

Moreover, the concept of the competency and competences can lead to some confusion when introduced for the first time. In conflict situations, people do not know what exactly they do not know if it is not presented in such a way that it causes a free and conscious choice. In other words, the international competence profile should highlight not the prescriptions in emergency cases but a combination of features and capabilities that it is desirable to strive for. The results of the introduction of this method by the author for the preparation of multicultural teams of project managers have confirmed its practical value.

Discussion

The introduction of cross-cultural training can take place in the following forms.

When carrying out an international project, the teams of which consist of three or more significantly different cultures in the project team, as part of the first project meeting and/or events to create the project team;
When implementing international project programs, whose teams consist of three or more significantly different cultures in the project team;
As one of the functions of the Project Management Office (PMO), which organizes training;
By inviting consultants who are specialists in conducting cross-cultural training;
In the program of events for team building both as a separate cross-cultural training and as one of the topics proposed to the project team during the kick-off meeting;

As a measure of summarizing the results of the project, formalizing the lessons of the project and the "emotional close-out" of the project. It is important to ensure the presence of positive emotions since when closing a project a "burn-out syndrome" quite often occurs when stress from the project ends. Conducting cross-cultural training, which concludes cross-cultural projects and emphasizes new discoveries and shared cultural traits.

As measures to prevent or resolve conflicts;

As part of the training on project management in a multicultural environment;

As part of the training program for undergraduates with a degree in Project Management or related subjects (for example, International Business).

During the implementation of cross-cultural training, the following challenges and problems are possible that may impede the effective establishment and functioning of this method:

Disagreement on the part of the project team members;

Disagreement from the management of the organization or experienced project managers;

The need to learn often causes resistance;

Conducting the first training without further monitoring and/or conducting the final training;

Insufficient budget in the project;

Lack of time, especially for intermediate and final training;

Force majeure circumstances.

Conclusion

High-level communications are built and structured in such a way that they help minimize and/or avoid unexpected delays and misunderstandings, warn applications of redoubled efforts, learn about problems in advance, and apply preventive measures.

According to the analysis of competences related to the management of international teams of projects in a multicultural environment, the existing classifications and approaches to formalizing and defining cross-cultural competences should be in-depth taking into account the specifics of the multicultural environment and the challenges associated with the human factor and problems in international communications.

Multicultural project managers must have a set of key competences. These competences constitute the asset of the project, ensuring its success. An analysis of world literature and scientific research indicates that the use of soft skills is the main tool that is used to solve problems and challenges related to the human factor and communications in international teams of project managers in a multicultural environment.

Therefore, when a project team is formed in a multicultural environment, it is necessary to formalize special requirements for the soft, in particular, cross-cultural competences of the project team members. In other words, the success of the project depends on the harmonization of the cross-cultural awareness and skills of the project team members. The manager of such a team should convey to the team members that one of the tasks of the team is to work with the existing team members and, accordingly, with the cultures involved.

The competence breakdown structure method is based on the generally accepted project management approach, which allows structuring a complex system into smaller manageable elements. The competence breakdown structure method allows detailing the concept of the competency, despite the approach to use and definition of the concepts of "competency" and "competence".

The proposed method was developed as part of scientific research and conducting cross-cultural trainings for international graduate students and masters who perform tasks for work or assignments in multicultural groups. However, further research and development are required to contribute to the field of competence management of international groups in a multicultural environment.

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