

Study of the Impact of the Quality of Communication on the Success of Projects Carried out at Higher Educational Institutions

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***Abstract.** The research project is being prepared during the study in Doctoral School of Social Science at Maria Curie-Skłodowska University in Lublin from 2020 to 2024. The main scientific goal of the study is to model the impact of the quality of communication on the success of projects carried out at universities. The strength with which the quality of communication influences the success of projects at universities and the relationships between its determinants will be examined. The set research goals will be achieved through a review of Polish and foreign literature on the subject, analysis of existing data and structural equation modelling. For this purpose, a preliminary dependency model was developed, showing the impact of the quality of communication on the project success. The determinants that significantly affect this quality will also be analysed and defined. The research and its results will enable a deeper understanding of the role of communication and its quality attributes in the effective achievement of individual project results.*

Keywords. Project, project management, communication quality, communication in the project, higher education institution, universities

1 Introduction

Nowadays, almost all universities in Poland implement projects and, for this purpose, obtain external funds. There are more funding opportunities and the conditions for project implementation have significantly influenced the way in which universities are managed. However, this issue is not sufficiently developed on the basis of the theory of management sciences. The specificity of project implementation at universities differs significantly from those organizations that have been described in the scientific literature so far. Published papers relating to universities focus on the specificity of project implementation in one institution or concern only research projects. They do not explore the importance of communication in this process. Effective project management at universities is an important issue, as it translates into the quality of their functioning and maintaining a competitive advantage.

Project management issues have been described extensively and in detail in both Polish and foreign scientific literature, but they still do not lose much of their topicality. Universities are organizations in which projects and efficient management of these projects are an important element of their functioning. This is important in terms of changes in the functioning of universities introduced by the law, as well as in the ongoing process of their internationalization. They carry out the didactic process as well as research and development activities. Their ability to adapt to changing market conditions and introduce changes is one of the key success factors. These changes usually take place in the project formula. According to data from the POLON system (April 30, 2021), there are 372 universities in Poland, of which approx. 60% are non-public. Due to the limited budget of the university, the undertaken projects are implemented mainly thanks to the acquisition of external funds under the available programs from the National Science Center, National Center for Research and Development, NAWA or the Ministry of Science and Higher Education. Thanks to this, it is possible to undertake activities in the field of research, research and development, international projects, implementation of IT and investment systems, improvement of the quality of education, student and employee mobility, implementation of practical elements within the course of studies, launching new specializations, establishing cooperation with representatives of the business, research commercialization. The implementation of this type of activities without external financing could be significantly limited or simply impossible. The effectiveness of obtaining external funds for research is also one of the criteria assessed in the annual ranking of universities "Perspektywy".

The concept of communication quality has been well researched in areas like psychology or communication and media studies sciences, but not in the area of project management. Many authors point out to communication as a key factor in the success of a project. However, communication is quite a broad concept and the most important thing is to identify its qualitative aspects and relate them to a specific situation or industry.

Most of the studies in this area concern the study of the quality of communication in IT projects and refer to a different approach to project success (there is no one generally accepted definition). However, universities and projects implemented in them have not been the area of research on this phenomenon so far. Therefore, there is a research gap, and due to the growing number of projects implemented at universities and significant funds that are ob-

tained by universities - this issue is important. The consequence of ineffective project implementation may be the return of received funds (in whole or in part). The effectiveness of obtaining external saucers for financing research projects is also one of the criteria for evaluating universities.

2 Scientific purpose

The research project is being prepared during the study in Doctoral School of Social Science at Maria Curie-Skłodowska University in Lublin from 2020 to 2024. The main scientific goal of the project is to model the impact of the quality of communication on the success of projects carried out at universities.

The following research questions were asked in the study:

1. Can we identify the factors influencing the quality of project communication at universities?
2. With what strength do the identified factors influence the quality of project communication?
3. Can we observe the relationship between the factors?
4. How does the quality of project communication influence its success?

A research model was developed on the basis of the literature review on the factors influencing the success of the projects. In this model, the relationship between the quality of communication in the project and its success will be assessed, as well as the impact of other variables on the quality of communication. The following theoretical constructs and definition of them were adopted:

- the competences of the members of the project team (by A. Rakowska, 2018) are their knowledge, skills, experience, personal qualities and attitudes,
- access to project knowledge (after P. Wyrozębski, 2014) is access to project knowledge by members of the project team in terms of information required in the implementation of assigned tasks, mainly related to reporting and project documentation,
- information and communication technologies (after K. Warzecha, 2018) is a set of systems, devices, communication media, tools and services that process, collect and transmit information in electronic form,
- the quality of communication (after B. Aubert, V. Hooper, A. Schnepel, 2013) is the degree to which the information provided by communication had appropriate content (was complete, reliable, accurate and purposeful) and had the appropriate form (was delivered in a timely manner, with an appropriate level of openness and formalities, adaptation to the recipient and was bidirectional),
- the success of the project (after E. Andersen, D. Birchall, SA Jessen, HA Money, 2006) is the degree to which the results were achieved for the project (project implementation within the planned time, budget and planned quality parameters), organization (preparing for the future) and satisfaction of members of the project team and its clients.

The model will also include moderating variables regarding the type of project (research, implementation, education). The main methodological goal of the work will be to prepare and

verify the model of the structural condition describing the analysed phenomenon. A measurement model will also be prepared.

3 Research methodology

The research goals will be achieved through the review of Polish and foreign literature on the subject, analysis of existing data (including regulations, guidelines) and structural equation modelling. A model has been prepared to assess the relationship between the quality of communication in the project and its success. The following theoretical constructs were adopted in the developed dependency model: quality of communication in the project team, quality of team communication with stakeholders, project success, team members' competences, access to project knowledge, information and communication technologies. The impact of the factors on the quality of communication will also be analysed.

Quantitative methods were used. Based on the definitions of theoretical constructs developed due to the review of Polish and foreign literature on the subject, questions for the questionnaire (measurement) were prepared - three or four statements for each construct. A Likert scale was used to monitor the responses. The survey was carried out using the proprietary questionnaire and the CAWI method. The selection was deliberated - participants of projects implemented at universities were recruited for the study (maximum 3 people from each university, depending on the type of project: research, implementation, education). The research was carried out in the period from November 2022 to January 2023. In total, 67 universities from Poland took part in the study. 160 of 175 received questionnaires were finally qualified for the study.

The research results are now being quantified in order to verify the research hypotheses set out in the project. The structural equation modelling (SEM-PLS) will be used to investigate the relationship between the variables. A measurement and structural model will be prepared. Convergent and differential validity tests will be used to analyse the model. Data analysis will allow to test the theoretical model taking into account various cause-effect relationships among the variables. The conclusions will also be formulated. The research results will be disseminated in the form of scientific articles in recognized journals dealing with topics related to management, including project management and management at universities. They will also be presented at scientific conferences.

4 The importance of the project's results

The problem of the quality of communication in projects has not received much attention in the conducted research in the field of management and quality sciences. Most of the studies in this area concern the study of the quality of communication in IT projects and refer to a different approach to project success (there is no one generally accepted definition). However, universities and projects implemented at them have not been the area of research on this phenomenon so far. Therefore, there is a research gap, and due to the growing number of projects implemented at universities and significant funds that are obtained by universities - this issue is important.

The results of the research work include defining the quality of communication adequately to the specificity of project implementation at universities, as well as examining the determinants that significantly affect this quality. In addition, the strength with which the quality of communication influences the success of projects at universities and the relationships between specific theoretical constructs will be examined. The results of the research will contribute to the organization and development of knowledge in the discipline of management and quality sciences. This will enable a deeper understanding of the role of communication and its quality attributes in the effective achievement of individual project results.

The research proposed in this project and the developed model are original and innovative and have not been tested so far, also at the international level. Also, previous studies have not used structural equation modelling to analyse this phenomenon in the same approach. The results of the research carried out due to the original approach and the area not studied so far have a chance to be disseminated in high-quality international scientific journals dealing with the issues of management, including project management and management in higher education.

The analysis of the obtained results will also help to better understand the mechanisms of achieving success in projects implemented at universities, as well as verify the hypotheses as to how communication is used to achieve the project's success and which of these methods is the best. On this basis, management staff will be able to improve the process of project implementation at universities and the results achieved in them not only for organizations and sponsors, but also for project clients and members of project teams.

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