



Международно Висше Бизнес Училище
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MILKA HRISTOVA NANOVA

**THE ROLE OF COMMUNICATIONS IN
PROJECT MANAGERMENT**

ABSTRACT

**of Dissertation work
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"Doctor"
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**Supervisor:
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The dissertation work has been discussed and proposed for defense at the International Business School

The dissertation contains a total of 183 pages. The structure consists of an introduction, an exposition (in three chapters), a conclusion, contributions, a bibliography of 73 titles and an appendix. The work includes 25 tables and 42 figures.

The work is and the other related information and documents are available to those interested in the "Study Department" at the International Graduate School of Business.

Author: Milka Hristova Nanova

Title: THE ROLE OF COMMUNICATIONS IN PROJECT MANAGEMENT

I. OVERVIEW OF THE DISSERTATION

In the development of modern organizations, project management is one of the tools for implementing changes. The success of any project depends largely on the competencies of the manager, project team members and stakeholders. Among these competences, communications occupy a special place.

Project management communications play a critical role in project success. They are that component that connects actors, activities, performance. Successful projects require effective communications and, in turn, effective leadership through appropriate management models and strategies.

The topic related to the role of communications in project management is significant and topical, given many factors: globalization, dynamics in the organizational and management environment (therefore also in the project environment), the development of communication technologies and the opportunities they offer in the management of communications and in project management. The relevance of the role of communications in project management is also determined by the fact that with the increase in the size and complexity of modern projects, the number of interested parties and the necessary information expands rapidly, thus complicating project communication.

Main goal

The main objective of the dissertation is to investigate the role of communications and communication processes in project management.

Subject and object

The subject of the study is the management of communications and communication processes in project management.

The object of the study is communication as an area with a key role and importance for project management, related to their effective management and overall success.

Research tasks

In order to be able to reach the set main goal of the scientific work, several key research tasks are defined:

1. Setting a theoretical framework and overview in the context of communications in project management;

2. Research in the field of communication management as a key area in project management;
3. Conducting empirical research to determine the importance of communications and their role in project management;
4. Making guidelines and recommendations for improving communications in project management after reporting the results of the study.

Research thesis and hypotheses

The thesis that defends the present work is united around the assumption that for the successful management of projects and the realization of the planned activities, a key role is played by different communication techniques and approaches.

In the course of the study, the author will try to confirm or reject the following hypotheses:

1. I admit that a complex of competencies is necessary for successful project management;
2. I admit that the lack of competences of the manager are a barrier to the successful management of the project;
3. I assume that to achieve effectiveness in management, the project team and stakeholders also need a certain set of competencies.

Statement of the problem

The essential role of effective communication for the success of the project is undeniable. However, few organizations can be defined as successful in managing communications. This raises some project management issues that accompany projects throughout their life cycle. At the same time, it raises important research questions related to communication planning and management, effective management/leadership (in project management, project teams, communication interactions), the need for communication competence of managers and their team members, the need to apply different communication techniques and approaches, etc.

Research questions

In order to achieve the formulated main goal and prove the thesis, the author will find answers to the following questions in the scientific work:

- How the overall planning in project communications management is carried out;
- How to communicate with audiences with different cultures in project management;
- How and with what does communication competence contribute to project management;
- How can communication processes in project management be upgraded and improved;

- What communication techniques and approaches can be applied to more effectively manage communications and projects in general;
- What set of competencies are required for effective leadership, incl. effective communication management in projects;
- How the relationship between effective leadership and communications determines project success.

Research methods

The methods used can be broadly classified as scientific (synthesis, analysis, comparison, summary) and empirical (quantitative and qualitative) and, more specifically, as a survey method. Through the chosen methods, the author aims to make a selection of specialized literature and relevant studies in order to lay the foundation on which the empirical research will be conducted.

Limitations of scientific work

The limitations are mostly related to the different aspects of the questions about the role of communications in project management and the impossibility to cover all sides of the problem. Given that:

1. The study does not claim to cover all aspects of project management communications, but only those that are relevant to the effectiveness of communication processes related to effective leadership and successful application of effective communication techniques and approaches;
2. The study does not claim to be comprehensive and in relation to all significant aspects in project management, incl. the management of project teams and stakeholders, as well as stages in the management of the project and its main components (scope, schedule, budget, quality, etc.);
3. The study claims to describe and analyze (therefore, to make recommendations for improvement) only that sample (that type of respondents) that got into the study.

II. CONTENTS OF THE DISSERTATION

II.1. CHAPTER ONE. THEORETICAL FRAMEWORK AND OVERVIEW IN THE CONTEXT OF COMMUNICATION IN PROJECT MANAGEMENT

1.1. Definitions of basic concepts and terminology

The first paragraph gives the definitions of the main concepts in the thesis. Their definition provides a basis for further research into the role of communications in project management.

The term "communication" is of Latin origin ("communicare" or "communis") and is interpreted as "to transmit", "to participate", "to share", "to communicate". "Communicare" is also interpreted as "doing something in common", and when we communicate, the common understanding is that we create this together (Clearly, 2008).

The following definitions can be found in the specialized literature:

- "...communication is a mutual exchange of ideas (thoughts, content, information, message) between people" (Boikov, Totseva, 2016: 11);
- "...the purpose of communication is to implement economic changes that affect the activity, so as to achieve high efficiency" (Nikolov, Voynova, 1995: 19);
- Keith Davis defines communication as a process of transmitting information and understanding from one person to another (Davis, 1978);
- For John Adair, communication is essentially the ability of one person to make contact with another and make himself understood (Adair, 2009).

Some of the definitions given refer to the broader concept of "communication", such as the exchange of ideas and interaction between participants (two or more). Others include a requirement for higher efficiency, success, change. However, there is something in common between the definitions. They define communication as a process.

For the purposes of the dissertation research, I adopt the following working definition of "communication": *communication is the process of transmitting, sharing, interpreting and understanding information, messages and ideas, through interaction between two or more participants, aimed at agreement, unity and unification of their efforts in order to establish such relationships that contribute to achieving higher efficiency and overall results.*

Two more concepts are found and used in the Bulgarian language: "communication" and "communication interaction" (from the Latin "interactio" - interaction). Often the term "communication" is used as a synonym for the term "interaction". Communication is defined as the communication or exchange of information between people by means of signals (Talukhaba,

et al., 2011). Communication is the most common form of interaction between people: a process of transmission and exchange of information between participants in communication (Obukhova, Pavlova, 2009). Given this, the terms "communication", "communication", "communication interaction" are used interchangeably within the dissertation.

Communication is the process of acquiring all the necessary information, interpreting that information and effectively disseminating it to those who may need it. At its most basic level, communication consists of three components: transmitter, transmission (channel/medium), receiver. The fourth component, the medium of communication, is the code through which the message is conveyed (Steyn, 2008). In the specialized literature, another significant component in the communication process has been added - feedback (Talukhaba, et al., 2011). If this link is missing or given too late, it can negatively affect the entire communication chain.

Communication always takes place in a certain context, which influences the content and form of the process. In this regard, the literature indicates the following aspects of the context: physical, social, historical, psychological, cultural (Leibniz, 2010).

Communication as a process takes place in both formal and informal settings. In formal communication, "rules and norms are followed, while in informal communication there are no predetermined regulations, agreements and style. The difference between the two forms is that the formal one is mandatory, it can be imposed" (Penevska, 2016: 6).

Specialized literature outlines two communication levels in project management: internal and external communication (Winch, Leiringer, 2016). Internal communication takes place between the project manager, the project team, the top management of the organization. External includes communication between representatives of the organization and/or participants in the project and external parties.

Project management is defined as "performing a set of heterogeneous activities with a unique content to solve a complex non-standard problem, under imposed restrictions regarding time, costs, quality and specific requirements to the organization of work" (Penchev, 2007: 2-3). Other sources define project management as "the application of knowledge, skills, tools and techniques to project activities to meet project requirements" (Project Management Institute, 2013a: 5). For others, project management is defined as "planning, coordinating and controlling project activities to achieve project objectives" (Wysocki, 1995: 2).

For the purposes of my dissertation research, I adopt the following working definition of "project" and "project management": *a project is a unique and transitory endeavor undertaken to achieve certain planned goals, achieve results, and/or effect desired/needed change. Project management is a temporary process and encompasses a set of knowledge, skills and tools necessary for the effective implementation of clearly identified project activities within the set time, budget and quality constraints. Project management also involves a significant degree of risk and uncertainty.*

In conclusion, after analyzing the main literature on the topic and the definitions of leading authors, about the role of communications in project management, it can be said that communication is a two-way process, including the following elements: sender, message, medium, channel, receiver, response/understanding, feedback. In project management, however,

it is not enough to have all these elements alone – there needs to be cooperation and understanding between the involved stakeholders.

1.2. Key players in project management

Project managers manage in an environment of increased risk and uncertainty when planning team actions. This is also due to the uniqueness of the project works. Project team management requires special attention compared to traditional company management.

When forming the project team, the project manager unites a group of specialists. The leader's task is also to create a sense of belonging, so that each member of the team identifies with the group: to share common activities, values, norms, beliefs to achieve the goals.

The team is defined as a group of people who must be directly connected in achieving common goals (Penchev, 2007: 9). Others define a team as "a small number of people with complementary skills who are committed to a common purpose, performance goals and a common approach" (Katzenbach, Smith, 1994: 3) or as "a distinctive way of working of a small group of people that harnesses their collective skills, strengths and energies" (Verma, 1997: 72).

For the purposes of the dissertation research, I adopt the following working definition of "project team": *the project team is defined as an integrated group of specialists working together and sharing common values, norms, beliefs, who are mutually engaged for a certain period in the achievement of project goals*.

The responsibility for building an effective project team is the responsibility of the manager. He/she is expected to possess a set of personal qualities and professional competencies, values and high morals. This set is not only related to managerial competencies (being able to plan, organize, control time, costs, quality), but also those related to managing a project team, i.e. with people management.

Determining the roles and responsibilities of team members for the implementation of project activities is an essential stage of team formation, and the goal is to build common criteria of values and norms. The process of forming team affiliation takes time, and typically project teams go through five distinct stages: formation, collaboration, effectiveness, maturity, disintegration.

According to specialized literature, the management of project teams requires from the manager competencies such as: leadership and interpersonal, administrative and technical competence (Thamhain, 1988; Verma, 1995). Others suggest that in addition to those mentioned, leaders should possess a range of virtues including: ethics, respect and trust for others, honesty, prudence, courage, responsible use and sharing of power (Kloppenborg, Petrick, 1999).

Given the expectations and demands on project team leaders, as well as the specifics of their management depending on the multiple factors of the project environment that have an

impact, I believe that the competencies identified in the literature can be supplemented and expanded to include the multifaceted role of the leader . In this regard, I propose a Model of Competences of Project Team Leaders (Figure I.1.).

The proposed model adds three more components to those proposed in the specialized literature, distinguishing a total of six competencies of project team leaders: professional competence, social competence, cultural competence, technical competence, interpersonal competence and leadership competence.

1.3. A theoretical framework for the nature and role of communication in project management

Specialized literature offers the following communication theories:

Groupthinking is a communication theory revealing a behavioral pattern that team members demonstrate to avoid conflict and reach consensus without critical problem analysis (Binder, 2007).The author shares the opinion that group thinking cannot always be perceived as a model for achieving consensus and avoiding conflict situations. Sometimes it can be a form of pressure from more prominent leaders on team members who are less prone to conflict. Some project members encourage groupthink to promote cohesion and unity (Campbell, S., et al., 2013), as project management requires all group members to participate in problem identification and solutions.However, groupthinking should not be encouraged too much in project management because it can lead to team and project failure. Rather, it requires balanced and harmonious stimulation depending on the situation, the context, even individual team members.

Very often during the implementation of a given project, its implementation requires both the need for new, innovative, even non-standard points of view to achieve the desired change, as well as the reconciliation of these points of view and ideas through different cultures. Diffusion theory of communication explains how these new perspectives and ideas spread through culture. Information and ideas pass through a path of communication to reach the target group and the whole society.The spread of an idea is influenced by the nature of the idea to be spread, the communication channels available, the social system and the timing of communication (Westland, 2007). However, the channel of communication plays the most important role in diffusion theory. According to this theory, people have a hard time accepting new ideas and changing their thinking. Based on the increasing focus of globalization in project management, the diversity of members has been enhanced to ensure multicultural representation. This is also beneficial in reducing the tendency to groupthink.

Communication in project management also depends on the ability of the communicating parties to understand the language and context of communication. Depending on the purpose of the communication, different communication techniques can be used by different parties in the project. At one point, informal communication may be necessary, while at another, circumstances may require formal communication. This is explained in the so-called "**communication**

adaptation theory" (also called communication adjustment theory).It is a theory of communication developed by Howard Giles that refers to: (1) the behavioral changes people make to adjust their communication with their partner and (2) the extent to which people perceive their partner to be appropriately attuned to them (Baker, 1991).

The basis of the theory lies on the idea that people adjust (adapt) their speech style to each other, which helps the sender of the message to gain approval from the receiver, increases the effectiveness of communication between the two parties, and helps the sender maintain a positive social identity.

It has already been pointed out that a great deal of project management today takes place in a global environment where communication takes place at a distance. In this context, another communication theory in project management comes to the fore, called "**social information processing communication theory**". This theory explains how people come to know each other without nonverbal cues. It reveals the development and management of social relations in a computer-mediated environment. Social information processing communication theory deals with online interpersonal relationships, relationships, and interactions. Although online interaction may take time to become effective (compared to face-to-face communication), it is a good communication tool for people of different backgrounds who are geographically distant, especially in today's environment of globalization.

From the review of communication theories, it can be concluded that they all emphasize the role and importance of communication in project management, but the successful management of the communication process (throughout the project life cycle) depends on the sum of knowledge, skills, abilities (personal characteristics) of the participants in this process. This sum is defined as "communication competences".

According to the specialized literature, the set of competencies comprising the basic behaviors required for effective performance in a particular role is called a "competency model" (Schippmann, et al., 2000). It is a valid, observable and measurable list of knowledge, skills, abilities that people demonstrate through their behavior leading to very good results in a given work environment. Depending on this, different models of competence may exist: leadership competence, technological competence, etc., incl. communication competence.

Depending on the work and organizational environment, a set of 7-10 general competencies are usually required, depicted in a competency model (Schippmann, et al., 2000). It includes the competencies necessary for effective performance of a certain job, team, organization. In the context of project management, it can be said that participants are required to have a set of competencies tailored to the specifics of the project and the project environment associated with each competency. From the point of view of project communications, it can be concluded that this set of competences is depicted by a 'communication competence model'.

In the specialized literature, there are different models of communication competence that can be traced back to the 1970s.

The theoretical framework of John Munby (1978) was built in order to prepare materials for students of foreign languages, placing communication as a foundation. His model consists of three components divided into parts (Munby, 1978: 23-25):

Socio-cultural orientation including: competence and community, adjustment and communication requirements requirements.

Socio-semantic basis of language knowledge, including language and communicative approach.

Level of discourse action: the level between mastery of grammar and the non-linguistic organization of communication, considering that communicative competence is a matter of discourse contained in the message (written and spoken).

The theoretical framework "**Canale-Swain model**" (1980) is considered one of the first to present a comprehensive model of communication competence aimed at education and its goals. In this model, three main components of communicative competence are present: grammatical competence, sociolinguistic competence and strategic competence (Canale, Swain, 1980).

Grammatical competence includes lexical knowledge, knowledge of morphology, syntax, phonology.

Sociolinguistic competence includes sociocultural rules of use and rules of discourse.

Strategic competence: it includes competences for using verbal and non-verbal communication strategies in situations where participants need to compensate for some of their deficits.

The theoretical framework "**Bachman-Palmer model**" (1982) complements the previous two models and includes the following components (Bachman, Palmer, 1982):

Organizational competence: includes various abilities related to the understanding of formal language structures.

Pragmatic competence includes abilities to use language as a link between the sender of the message and a specific communication situation.

Strategic competence involves knowing and applying the components of language competence in a specific context.

The theoretical contribution of the leading authors in the field of communication competence is indisputable, and their models can serve as a basis for creating a model in project management as well.

Aligned with project management, however, I believe that the model for communication competence should take into account some factors, given the need to achieve this competence by participants with more complex communication interactions and needs during the course of the project.

It follows that the achievement of communication competence in project management would be influenced by linguistic, social, cultural, organizational, strategic, etc. competence, but also from psychological and social factors – behavior, attitude, motivation, confidence, trust, adaptability, context. In this regard, I propose a **Model of Communication Competence in**

Project Management (Figure I.2.). The proposed model contains six components of communication competence in project management: language / grammar competence, social competence, cultural competence, technical competence, behavioral competence and contextual competence.

1.4. Project management approaches

This paragraph includes three sub-paragraphs:

1.4.1. Project management methods

In the specialized literature, different methods are found in the management of projects, such as the classical management approach of Fayol (1949); problem solving cycle; project management life cycle.

Fayol's classic management cycle is related precisely to these five main management functions (Penchev, 2007: 8-9): planning of activities; organizing the resources for the implementation of the activities; performance; management/coordination of executive teams; controlling the implementation of planned activities and possible updates to the plan.

Another management method is the problem-solving cycle. The main steps that are followed in this cycle are (Penchev, 2007: 9): emergence and determination of the statement of the problem; gathering information; specifying the problem; generating solutions; evaluation of solutions (options); decision selection; communicating; implementation of the plan; deployment; monitoring, evaluation and transition to the initial step as necessary.

The following model of the life cycle is presented in the literature with the following phases: conceptual, planning, implementation, closing (Penchev, 2007: 9).

For the needs of the dissertation research, I modify the classic Fayol cycle and the project life cycle model as follows:

1. Management principles of the project cycle: planning, organizing, monitoring / control, evaluation;

2. The individual phases of the project: initiation, planning, implementation, closure.

The specialized literature presents different methods / approaches to the management of projects that follow certain actions or successive stages / phases. From the presented theories, it can be concluded that project management is also a process. Taking into account the theory of project life cycle management and its temporary nature, it can be concluded that, in addition to a process, management is also a cycle - with a beginning and an end. Therefore, combining the ideas of the presented theoretical models, each project goes through certain steps (phases / stages), which can be denoted by the concept of "project cycle", requiring the basic management principles.

With this in mind, I propose a **Project Management Model (Figure I.3.)**. The proposed project management model includes the key management principles applied at all times in each phase of the project.

1.4.2. Project risk management methods

In the literature, there are various definitions of "risk management", which are united around the view that risk management is a process of identification, analysis and assessment of risks related to the achievement of organizational tasks and objectives, as well as taking actions to minimize them (Project Management Institute, 2013a).

For the needs of the dissertation research, I adopt a working definition of "**project risk**" and "**risk management in projects**": "**project risk**" means any uncertainty that, if it occurs, can negatively affect the implementation of one or more project objectives - scope, budget, schedule, quality. "**Risk management in projects**" is related to the implementation of certain procedures, with the aim of preventing a change in the main planned parameters of the project in a negative direction - deviation from the scope, exceeding the budget, extending the deadline, deterioration of quality / dissatisfaction.

Project risk management goes through the following stages:

First stage – Identification of risks

At this stage, those parameters are established in which a given impact and/or negative change can cause a change in the scope, term, budget, quality of the project. This stage is key as it predetermines the entire risk management process. If risks are not identified, they remain unexplained, therefore unmanageable.

There are various methods of risk identification in the project, and among the most popular ones that can be applied, the following are outlined:

- *Review of project documentation*
- *Overview of foreseeable / anticipated risks*
- *SWOT analysis method*
- *Survey methods through survey cards*
- *Expert evaluation methods: Delphi method, Brainstorming method, Rings method.*

The output information must contain data forming the key project parameters – term, scope, budget, quality, efficiency – parameters where negative changes are likely to occur. Through this information, a list (or register) of the identified risks is compiled. The list is the basis for subsequent analysis and risk assessment. It is useful to categorize risks as this can facilitate their analysis and subsequent management. The author offers an example categorization of the identified risks (Table I.3.).

Second stage – Risk analysis and assessment

During this stage, already identified risks, the compiled list and their classification are considered and studied. This is done on the basis of the probability expected of their eventual occurrence, as well as the consequences. Project management risk can be measured and represented through a variety of approaches. Popular approaches are quantitative, qualitative, unidimensional, multidimensional, combinations thereof.

The purpose of the assessment is to decide which risks to counter, which in turn is related to the categorization of the analyzed risks as: significant, acceptable and rejected.

Evaluation can be done by comparing the impact they may have on a given project component (time, cost, quality) and the likelihood of their occurrence. This is the so-called "probability-impact matrix", which is usually three priority zones and three power scales for probability and impact.

In project management, however, a greater degree of gradation of zones can be used, since by default the project is characterized by higher degrees of uncertainty and risk. The likelihood-impact matrix can include three priority areas and five probability and impact scales.

It should also be taken into account that in the matrix a given risk can lead to favorable or unfavorable consequences. Therefore, it can be assumed that risk assessment is related to both project threats and opportunities. Some of the most critical components of project management are its schedule, budget, scope and quality, assessing the risks versus opportunities/threats they may pose. In this regard, I propose a **Project Risk Map (Figure I.7.)**.

Third stage – Planning of activities

The planned activities are related to the defined actions and measures that reduce the threats and increase the opportunities for the project and its objectives. How effective the planning of activities is depends on the reduction / increase of risks. According to the risk assessment, the measures can be applied in a list (or register) of actions taken to manage and control the identified risks. For example, in the Register of actions taken to manage and control the identified risks (Table I.5.). In this register, I offer identification of risks by main components (time, budget, quality), risks assessed as high priority for each component and possible actions to reduce the risks.

Fourth stage - Risk control

Control requires not only the tracking of initially identified risks, but also the monitoring of residual ones (for example, when mitigating or avoiding), as well as the discovery of new risks during the implementation of project activities. Control is an ongoing process throughout the life cycle. Risk control should also include a back-up plan or alternative strategies; to have opportunities for additional planning and/or taking corrective actions.

1.4.3. Strategies for managing communications in projects

Most projects today develop a communications management strategy. In view of this, I propose a Strategy for the management of communications in projects (Figure I.8.), which contains:

- 1. Participants, roles and responsibilities;*
- 2. Selection of communication channels;*
- 3. Access to information (defined from two perspectives): level and method of access;*
- 4. Format of receiving the information;*
- 5. Information and communication technology.*

The proposed communication management strategy can be supplemented, amended and/or adapted to the communication needs of each individual project and can be a useful starting point for planning strategic communications in project management.

In summary of Chapter One, several main conclusions **can be drawn**:

1. Communication is a two-way process, including the following elements: sender, message, medium, channel, receiver, response/understanding, feedback; the process of transmitting, sharing, interpreting and understanding information, messages and ideas through interaction between two or more participants.
2. The project is a unique and transitory undertaking to achieve certain planned goals, achieve results and/or implement a desired/necessary change.
3. Project management is a temporary process and encompasses a set of knowledge, skills and tools necessary for the effective implementation of clearly identified project activities within the set limitations of period, budget, quality.
4. Project managers play the main role in their management. They are expected to possess a set of personal qualities and professional competencies, values and high morals.
5. The responsibility for building an effective project team is also the responsibility of the manager.
6. Communication theories in specialized literature highlight the role and significance of communication in project management, but successful management of the communication process (throughout the project cycle) depends on the sum of knowledge, skills, abilities (personal characteristics) of the participants in this process, i.e. of their 'communication competences'.
7. Different models of communication competence suggest a range of competences included in communication competence. The proposed author's model expands and complements the theory, focusing also on the environment, situations, behavior of the participants.

8. There are different approaches and methods in project management. They need to be adapted for application to the particularities of the project and the environment. The author's proposed model emphasizes the importance of applying management principles at any time during the course of the project.
9. The stages in project risk management follow four main steps, during which communication continues to play a leading role. The methods of identification, analysis and evaluation, planning and control can be independently selected or a combination of the most suitable for the respective project and according to its features.
10. Project communication management strategies are a systematized series of steps and actions that support the efforts of the manager and the project team on their way to more effective communication.

I.2. CHAPTER TWO. COMMUNICATION MANAGEMENT AS A KEY AREA IN PROJECT MANAGEMENT

2.1. Effective communication management in project management

The specialized literature identifies project communications management as a series of processes required to plan, generate, collect, distribute, store, retrieve, manage, control, monitor and ultimately dispose of project information in a timely and appropriate manner (Project Management Institute, 2013a). In turn, project communication is defined as the exchange of information with the aim of building coherence among project stakeholders (Nangoli, 2012).

The term "project communication" refers to all aspects of communication in a project: both external and internal communication, written, oral and interpersonal, planned and unplanned (Ramsing, 2009).

For the needs of the dissertation research, I adopt the following working definition: project communication management includes processes of planning, management, monitoring and control of project information provided through appropriate communication means through various communication channels depending on the needs of participants and stakeholders during the entire project life cycle. Communications management also includes effective management of communication interactions between participants and stakeholders, incl. risks, conflicts, overcoming barriers, solving problems, as well as applying appropriate communication strategies, techniques and approaches.

Specialized literature defines three processes for managing project communications (Project Management Institute, 2013a):

- Communication management planning – developing a plan for the flow of information for the project according to the needs of the stakeholders, taking into account the assets of the organization;
- Communications management – generating, collecting, distributing, transferring, storing and retrieving project information based on the plan;
- Control communications – monitoring and control of project communications to ensure their effectiveness and efficiency.

When developing a communication plan, the project manager seeks answers to several questions (Dow, 2013):

1. Who needs the information?
2. What type of project information is needed?
3. How will it be communicated?
4. When is the information needed? How often is it needed?
5. Why do stakeholders need this information?
6. How do you know the communication plan is working?

The literature suggests stakeholder analysis through a Stakeholder Analysis Matrix (Table II.1.) (Riahi, 2017: 39), and the analysis of these stakeholders to be done through a Stakeholder Map (Figure II.2.) (Mitchell, 1997: 874).

Various means of how project information can be disseminated are being discovered that can increase the effectiveness of communication. The recommended communication tools are classified in the different areas of project management (communication management, cost management, personnel management, procurement management, quality management, risk management, time management (Dow, Taylor, 2008).

Effective communication implies the optimal relationship between written and oral types of information. The use of graphic aids also increases the chance of understanding the information. Given this, the most common communication techniques (means) in project management are systematized and presented in a table (Table II.3.) (Dow, Taylor, 2008: 651-661).

According to specialized literature, it is necessary to implement practices that measure and evaluate communications in order to guarantee their effectiveness (Santarcangelo, 2012). This can be done through a variety of assessment tools and methods. For example, feedback and/or questionnaire survey. The literature recommends regular feedback as fundamental to effective communication, and the manager should plan it through as many communication activities as possible (scheduling question and answer sessions after key meetings or asking stakeholders to respond to important emails and messages) (Santarcangelo, 2012).

This is a good way to get it because, like getting the information, it creates a sense of rhythm while encouraging communication. However, I believe that feedback should rather be accepted as a continuous process and encouraged as such. Providing it "regularly" (for example, after every weekly meeting) rather creates a sense of obligation that a project participant is obliged to fulfill as it becomes part of his responsibilities. The continuous provision of feedback should be perceived by the participants as a way to facilitate the implementation of the project's objectives; as a tool thanks to which risks, conflicts, information gaps, etc., would be minimized.

Questionnaires can also aid the process, but rather they can be used as a tool that is used periodically to assess communications. These should be scheduled regularly to fit into the general assessment rhythm (eg, every three or six months). I think it should also be considered who the inquiry is addressed to: project team members or interested parties. Not always the same type of questionnaire assumes that the manager will learn from different participants what interests him.

Apart from periodically, the study of the effectiveness of communication can also be done after key important events in the project.

It is important to clarify that the same message delivered under the same conditions can cause a different reaction in individual recipients. This usually depends on the chosen communication model. In practice, the classical communication model "sender-receiver" proposed by Claude Shannon and Warren Weaver (1949) is most often used. This model is a single system of several elements:

Source > message > channel > receiver > distance > feedback (proposed and introduced a bit later) > encoding and decoding processes (Shannon, 1948).

The "sender-receiver" model also pays attention to the effectiveness of communications and can also be applied in project management. Often, recipients understand messages differently, which can lead to communication barriers (Rollinson, 2008): barriers in perception; personality and interests; attitudes, prejudices, emotions; the receiver hears what he wants to hear; ignoring nonverbal cues. The effectiveness of communication depends on various factors, which are tabulated (Table II.4.).

The success of the project and the achievement of the desired change depends on timely and effective communication throughout the project life cycle. Communication planning is the basis for good communication management, along with the identification of stakeholder needs and requirements. Continuous feedback is also important for the successful implementation of communication interactions.

2.2. Communications in the management of international projects

The specialized literature suggests, in addition to the use of a communication plan in the management of communications, to outline the importance of culture and language, since "in a multicultural project, participants may have to navigate multiple cultural and value norms" (International Project Management Association, 2015: 58). Communication management in an international project does not always pay attention to cultural differences, which contradicts the claim that communication is key to project success.

According to other sources, the implementation of communication management strategies in international projects is also necessary, stating that they should include the means and frequency of communication for both external and internal project parties. Stakeholder engagement is also referred to as 'an essential part of a communication management strategy' (PRINCE2, 2009: 42). Although not specified in the context of more specific cross-cultural characteristics, the authors define sub-areas as "tools and techniques", "reporting", "timing of communication activities", "stakeholder analysis", "information needs for each stakeholder country".

According to the authors, the communication management strategy should include (PRINCE2, 2009: 239): information to be provided by the project; information necessary to provide the project; provider and recipient of information; frequency of communication; means of communication; communication format.

It is observed that this strategy resembles the one proposed by the author (Figure I.8. Strategy for project communication management), which is, however, more general and can be applied to project communication management in principle. Since the specifics of intercultural communications are missing here, I propose a strategy that is more specific and can be applied in international projects (**Figure II.4. Strategy for managing communications in international projects**).

Specialized literature discusses the problems and communication barriers in international projects, offering tools for their management in three main categories:

1. Culture related (Kerzner, 2009: 354);
2. Related to the personal perceptions of the participants (International Project Management Association, 2015: 43);
3. Related to technology (Project Management Institute, 2013a: 290).

It should not be excluded that there are cultures for which changing behavior, perceptions and/or attitudes towards positive relationships and communication in general is quite difficult. In view of this, I propose the inclusion of one more category that can relate to communication problems in international projects – cultural identity.

For the purposes of the dissertation, I offer the following working definition of "**cultural identity**": *cultural identity is the belonging, inclusion, identification of a person with a certain type of culture or cultural group: adoption of beliefs, traditions, ideologies, patterns of thinking / behavior, social structures, etc. .*

Despite some similarities with personal perceptions, cultural identity as a possible communication problem in an international project environment differs from them, as participants from the same culture may not react and/or interpret events and situations in the project, differing in their personal perceptions even though they belong to the same cultural group. In international projects, cultural identity is intertwined with communication at the group level - when the relationship between "cultural identity - communication" should be approached: an approach that gives importance to social construction and interaction in an international environment.

Therefore, it is important to interpret the effect of cultural identity perceptions on communication as a means of preventing conflicts and problems, incl. to provide an explanation of identity-based communication problems (and possible tools for overcoming them). I specify the proposed category in **Table II.8. Issues and tools related to cultural identity.**

The cultural identity of each project participant in a culturally diverse organization and/or project team enables new communication interactions and discovery of new relationships, and any "hidden" challenges can have significant performance and knowledge exchange benefits for all stakeholders .

2.3. Комуникативни умения за постигане на ефективност и комуникационни стратегии на лидерите

It is observed that in most studies there are statements that the project manager must be a leader and this is a prerequisite and a critical factor for the success of the project. Others argue that there is an overlap between leadership and management (Shenhar, 2004). The claim that everyone appointed to a leadership position should be a leader is often shared. However, this contradicts the perception that leaders are chosen / created by followers. Additionally, there is research both to support the claim that leaders are born and leadership cannot be learned, and to support that anyone with hard work and experience can become a leader (even if they are not born as such) (Boerma, et al., 2017).

In general, it is difficult to distinguish between leadership and management and which is better, as both have their own characteristics and functions that are necessary for the success of a project. In this context, it is important to note that, in general, project proposals do not require the supervisor to be a leader. Rather, the requirements for project managers are related to a set of management skills, knowledge, experience, adding to them that having leadership qualities would contribute to more effective management of projects and their teams. Since management, like leadership, has a set of useful tools, techniques and management approaches (Lunenburg, 2011), it would be more correct to define and show the role of the manager-leader in project management.

The manager-leader in the project knows how to deal with complex situations and tasks, but also leads, motivates, communicates well. The collaboration between management and leadership skills in project management implies a role that combines many complementary functions.

Through his management skills, the manager-leader will perform project activities for planning and organizing, decision-making. Through his leadership skills, the manager-leader will lead others to achieve the goals of the project, motivate and direct them to realize their potential, achieve better results.

The literature indicates that project managers must possess essential leadership qualities and competencies in addition to management skills to effectively achieve business results.

It should be noted, however, that it would be difficult to follow and/or consider only one particular leadership style effective throughout the project, even a combination of styles.

Assumptions such as those of Yang et al. (2010) that leaders can change their leadership style by using a different leadership style in different phases of the project life cycle (Yang, et al., 2010) are also open to criticism as risks, contingencies and/or changes may occur in any one phase, more than once.

It would be more correct for the choice of leadership style to be consistent with the given situation, with the other party participating in the communication interaction (superior, team member, interested external party), even with the behavior of the individual. Given this, as well as taking into account the importance of the leader's ability to correctly assess each situation (including communication party and/or personality), I believe that it is more appropriate to apply leadership styles as **strategies for achieving effectiveness**:

1. Strategy "performance - goal";
2. Engagement strategy;
3. Situational strategy;
4. Strategy "activity - team - person";
5. Strategy "unpredictability - risk";
6. Partnership strategy.

Whether a strategy is implemented alone, in combination with another, and/or in combination with a specific leadership style, managers need communication skills that help them achieve effective communication.

Communication skills imply the ability to interact effectively with the team, employees, partners and stakeholders. Through these skills, the leader can establish cooperative relationships with team members to ensure a good communication climate, identify risks, ensure commitment and participation.

Communication has been described as one of the most important skills in life, and the most important skills a project manager should possess are communication skills (Heldman, 2011). Others point out that effective leadership in project management is largely a matter of communication (Barrett, 2006).

In general, the authors agree that communication skills are important for the role of the leader. These and similar statements are indisputable, but together with his communication skills to successfully manage the communication process (throughout the project life cycle), the manager-leader needs a set of knowledge, skills, abilities (personal characteristics) or a set of communication competencies. Therefore, it would be more correct to say that communication competences are important and relevant to the role of the manager.

When a manager is a bearer of values and professional competence (consisting of competencies), then he can be effective in what he does. Effective communication helps build trust and encourages cooperation between parties in the communication process.

The importance of communication competencies is explained by the fact that managers differ in their communication interactions and performance. In particular, in project management, these competencies have an impact on the professional path, personal success and the success of the projects being managed.

The manager needs communicative competences, which I present in three main directions, according to the type of communication (internal and external) in the projects (Figure II.6. Communicative competences for the project manager):

1. Clear expression of ideas and thoughts by the manager;
2. Listening with understanding;
3. Communicating for different purposes in different environments.

The manager is the bearer of both professional competence and values. Values, as inherent in an effective project manager, can be referred to as those strong distinctive characteristics of his/her individual personality that influence the choice of various methods of action by which he/she manages the project and his/her team in relation to the goals he/she desires to achieve.

In the specialized literature, there are different approaches to research and systematize values, but as inherent in the effective project manager, I believe that among the most important are: ambition; self control; self-directedness; power; courage; courtesy; honesty; integrity; benevolence; imagination; independence; intellect; range thinking; audacity; affiliation; usefulness; responsibility.

In the context of project management, I believe that there is a relationship between the professional competence, personal characteristics and values of the manager and effective communication (including the effectiveness and communication strategies applied by the manager-leader, as well as systematized communication competences). With this in mind, I propose a **Model for Effective Management (Figure II.7.)**, which can be a useful tool during the entire project life cycle.

The proposed model unites the management and leadership role, revealing the path of effective leadership during the entire project cycle, by applying tools, models and strategies, both in communication management and those for efficiency and better performance.

1. In summary of the Second Chapter, the following conclusions can be drawn:
2. Project communication management includes processes of planning, management, monitoring and control of project information provided through appropriate communication means through various communication channels depending on the needs of participants and stakeholders during the entire project life cycle. Communications management also includes effective management of communication interactions between participants and stakeholders, incl. risks, conflicts, overcoming barriers, solving problems.
3. Identification and analysis of project stakeholders is a key stage that determines the effectiveness of communications. There are different approaches

for this, taking into account the project environment (local, international), scope, time, budget of the project.

4. 4. Communication planning is the basis for effective communications, along with the identification of stakeholder needs and requirements. Continuous feedback is also important for the successful implementation of communication interactions.
5. The management of communications in international projects requires specific competencies (cultural, linguistic), along with communicative ones. International projects involve certain risks that should be identified and managed. Communication barriers of various nature often appear in an international project environment, which can be overcome by appropriate communication management strategies in international projects.
6. Essential to communication management are the communication skills of managers to achieve effectiveness and the communication strategies of leaders. I consider it more appropriate to apply the leadership styles known in theory as strategies for achieving effectiveness.
7. Along with his communication skills, for the successful management of the communication process, the manager-leader needs a set of knowledge, skills, abilities (personal characteristics) or a set of communication competencies. Therefore, communication competencies are important and relevant to the role of a manager.
8. There is a relationship between the professional competence, personal characteristics and values of the manager and effective communication (including the efficiency and communication strategies applied by the manager-leader, as well as systematized communication competences). This implies the application of the Model for Effective Leadership.
9. The proposed model unites the management and leadership role, and can be useful during the entire project cycle, by applying tools, models and strategies, both in communication management and those for efficiency and better performance.

II.3. CHAPTER THREE. AN EMPIRICAL STUDY OF THE ROLE OF COMMUNICATIONS IN PROJECT MANAGEMENT

3.1. Research methodology

3.1.1. Data collection for the study

Data for the empirical study were obtained through primary and secondary research. Secondary data includes synthesis and analysis of various sources, specialized literature and

studies in the context of project management communications discussed in Chapters One and Two. Some proposals have been made to them, and the author's view has been added, through own definitions, proposals for models, strategies, a set of competencies, etc.

Primary data collection methods can be divided into two groups: quantitative and qualitative. In relation to quantitative methods, for the purposes of the dissertation, the author uses a survey method and, more specifically, a questionnaire with closed questions presented in the form of a survey card in an online environment. Qualitative research methods do not involve numbers or calculations, but other elements that cannot be quantified. In the present study, qualitative methods are partially used because the survey card ends with an open-ended question to the respondents.

3.1.2. Methodical toolkit

Questionnaires can be classified as both quantitative and qualitative methods depending on the nature of the questions. Specifically, survey responses obtained through closed-ended multiple-choice questions are presented using quantitative methods and include pie charts, bar charts, and percentages. The results of the multiple-choice questions are ranked in tables. The answers obtained to the last open-ended question are presented using qualitative methods: discussion and analysis, without the use of calculations.

The questionnaire was independently created for the purposes of the dissertation and tailored to the research area. The survey card contains a total of 28 questions, some of which will help to compile a profile of the respondents. They contain demographic and labor characteristics. The remaining questions focus on communications in project management.

3.1.3. Sample of the study

The study sample included 143 respondents participating in a survey using the "survey method" in an online environment while respecting all ethical and moral considerations. The persons are representatives of organizations (firms, companies), institutions and various business and public environments, which in some way are participants in certain projects, incl. as managers / project leaders, team members or stakeholders.

The sample of survey participants has the following characteristics: respondents of both sexes participate in the survey, with a slight preponderance of males over females. Respondents from the 31 to 45 age group predominate. The respondents are highly educated with higher qualification degrees. The group of those with work experience between 6 and 10 years predominates, and in relation to the position they hold, those in the "specialist" and "expert" positions prevail.

3.2. Presentation of the results of the empirical study

The first 5 questions of the survey included the characteristics and profile of the respondents represented in the sample.

Following are the remaining 25 questions that respondents answered, represented by the results:

Figure III.6. **Role in project involvement** shows that more than half of respondents occupy the role of project team members, followed by managers/leaders and stakeholders. This helps elicit responses that track the position and opinions of project team members about their managers – useful for subsequently identifying strengths and weaknesses in managers' communication management, as well as deficits in their leadership effectiveness and gaps in key competencies required for this effectiveness.

Figure III.7. **Frequency of participation in projects** shows that almost 80% of the respondents participate often and very often in projects, which (based on the previous results in Figure III.6.) shows that they have the necessary professional competence (including communication) and personal characteristics to be part of a project undertaking in the role for which they are designated.

Figure III.8. **Involvement in international projects** indicates that more than 80% of respondents are involved in international projects, suggesting that as managers, project team members and stakeholders, they have previous experience and insight into working in an international project environment. Therefore, they should also possess some communication competences in interactions with other cultures and environments, incl. cultural competence.

From Figure III.9. **Role of communication in project management** it is clear that only 10% of the respondents indicated that they rather disagree with the statement that communication plays a key role in project management. This shows that for the respondents, communications are important in the performance of their tasks and activities in a given project.

Question 10 gives respondents the opportunity to indicate more than one answer, so that the total registered answers of all 143 are 429 (**Figure III.10. Communication qualities during project implementation**). The ranking of the results shows that for the respondents trust and respect in communication interactions is the most important, followed by planning, management, control of communications and continuous feedback (Table III.1).

Significant communication skills when implementing a project). This means that professional and technical competence as well as social, cultural and behavioral competence are important.

Figure III.11. **Dependence of the project implementation on the communication competence of the manager** shows that only 8% of the respondents rather disagree and disagree with the statement that the implementation of the project depends directly on the project manager and his communication competence. Therefore, the importance of both communication competence and all its individual components comes to the fore (Figure I.2.). This also confirms the need for the leader to possess a set of systematized communication competencies and values and to implement effective leadership and communication strategies.

Question 12 also allows respondents to indicate more than one answer, listed in Table III.2. Stages in planning communications in projects. The results show that for the largest part of the respondents, all the indicated stages are taken into account. Apart from that, the communication plan takes a leading place, which shows that for the respondents it is a main tool for achieving the project's goals. These results are related to the significant communication qualities mentioned above and it can be assumed that the respondents associate the communication plan with both the effective implementation of the project objectives (based on good planning) and the building of trust between the participants with a focus on the common cooperation and ways to achieve these goals.

The results in **Figure III.13. Measurement / evaluation of the effectiveness of the communication plan** show that for slightly more than half of the respondents, no evaluations of the effectiveness of the plan are used. For some projects, evaluations are optional, although they can show both the effectiveness of the plan and identify possible areas for improvement.

According to others, continuous feedback is provided and regular meetings are organized, as are surveys. It can be assumed that they are probably part of larger projects, incl. international ones where communication plans need evaluation.

Question 13 also allows respondents to indicate more than one answer, listed in **Table III.3. Communication barriers in project management**. The results show that the recipients' attitudes, prejudices, emotions are the most common communication barrier, followed by perception barriers and ignoring non-verbal signals. Attitudes, prejudices, emotions are a barrier often encountered when forming project teams, when interacting with participants from other cultures, in the absence of sufficient knowledge about them, incl. as a defensive reaction.

However, it can also be encountered in the absence of sufficient communication competence, as well as ineffective leadership. This also applies to perception barriers (for example, if the manager does not have an appropriate set of communication competencies, it would be difficult to convey project information, effectively communicate interactions between project members, effectively manage the entire communication process, etc.).

According to **Figure III.15. Adherence to communication processes (planning, management, control)** in project management, for more than half of the respondents, communication processes are respected and followed in project management, but still the answer "in most cases" prevails. This shows some hesitation, which can be interpreted as a signal of gaps and/or the presence of deficits in the planning, management, control of communications. Again, I will point out that this may be due to a lack of sufficient communication competence as well as ineffective leadership, but here I add the professional and technical competence from the competency model of project team leaders (Figure I.1.).

The results in Figure III.16. Communication techniques used in project management show that the most frequently used communication techniques are voice communication (telephone / video calls, audio / video messages, conference calls), followed by written communication (e-mail, instant messages, project sites). This to some extent confirms the high frequency of use of digital technologies and online communication in general in project management. Given the respondents' participation in international projects as well, the use of new technologies should

facilitate both the communication process and interactions, as well as more effective communication management.

The results in **Figure III.17. Awareness of all activities related to the projects** show that the respondents are well informed about the activities and tasks for which they are responsible in the projects, which speaks of receiving timely, complete and accurate information. This, in turn, indicates good management of information resources, possibly following communication strategies.

The results in **Figure III.18. Timely feedback in project work** shows that respondents who receive timely feedback and those who receive very rarely and never receive feedback are about the same number. The preponderance of respondents at "in most cases" shows hesitation, and the general conclusion can be drawn that feedback is generally tolerated and implemented in project work.

At the same time, however, its absence indicates some gaps in the leadership related to its effectiveness. This should be noted as a problem, as it can lead to communication barriers and disrupt interactions between participants, incl. to influence the success of the project.

The results in **Figure III.19. Presentation of proposals / new ideas to the manager, team, stakeholders** show rather passivity in sharing new ideas and proposals on the part of project participants. This can be a consequence of various factors: lack of confidence, anxiety, fear of rejection, etc., but it can also be a sign of the effect of groupthink, as well as a certain level of distance between participants and management and/or stakeholders, which is difficult to overcome. The possibility that the majority of respondents do not have their own ideas and, in general, what to offer from their own perspective should not be excluded.

The results in **Figure III.20. Effectiveness in manager-leader communication (with individual members, the project team and stakeholders)** shows that for 29% of respondents, manager-leaders communicate effectively. The rest are somewhat hesitant and adamant about the ineffectiveness of this communication. This shows deficits in communication competence, but also in leadership effectiveness. Effectiveness strategies and communication management strategies are probably not being implemented either.

The results of **Figure III.21. Effectiveness in communication between project members** are similar to the previous ones, and here probably the lack of effective communication between project members is mostly due to an insufficient level of their communication competence. Regardless, however, the responsibility for her promotion rests again with the manager, i.e. related to gaps in project leadership and communication effectiveness.

The results of **Communication competences of managers-leaders for communicating with representatives of other cultures** show a preponderance of responses according to which managers/leaders rather do not possess communication competences for communicating with representatives of other cultures. This means that there are gaps and deficits in terms of the cultural competence of managers, which in relation to other survey results can be interpreted as follows:

- The participation of the respondents in international projects implies a significant degree of cultural competence, while at the same time the results here (Figure III.22.) show that this degree is low;
- If it is accepted that cultural competence is a significant component of communication, I assume that part of the unsuccessful projects are also due to gaps / deficits in relation to the cultural competence of managers;
- This is not the only reason for project failure (as also observed below in Figure III.27.), but it can be considered a factor in relation to failed projects with international participation.

The results of Figure III.23. **Communication barriers in intercultural communication** show that the most obvious communication barriers in intercultural communication are dictated by the lack of insufficient communication competence and its two components (in accordance with Figure I.2. Model of communication competence in project management) – social and cultural competence.

A third component of this pattern is also observed – language/grammatical competence. Not accepting differences can also be linked to cultural competence, but also to behavioral competence. The latter also explains prejudices/stereotypes. However, they may also be due to some personal characteristics of the respondents, as well as their cultural identity, incl. personal values, beliefs, convictions.

The results in Figure III.24. show the Degree of importance of the competencies that the manager-leader must possess for effective project management. They have the following tabular form:

Table III.4. Competencies of a manager-leader for effective project management

Компетентности на ръководител-лидер	1 - много важни	2 - важни	3 - нито важни, нито маловажни	4 - не важни	5 - маловажни	Общо
Professional Competence (PC)	48	51	32	9	3	143
Social/Cultural Competence (SCP)	46	59	30	8	0	143
Technical Competence (TC)	29	61	37	13	3	143
Interpersonal Competence (IC)	39	67	23	12	2	143
Leadership Competence (LC)	31	47	42	19	4	143

The results are ranked by importance and position in the following table:

Table III.5. Ranking the competences of the manager-leader by degree of importance and position

СТЕПЕН НА ВАЖНОСТ ПОЗИЦИЯ	1	2	3	4	5
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1 - very important	ПК	СКП	МК	ЛК	ТК
2 - important	МК	ТК	СКП	ПК	ЛК
3 - neither important nor unimportant	ЛК	ТК	ПК	СКП	ТК
4 - not important	ЛК	ТК	МК	ПК	СКП
5 - unimportant	ЛК	ПК	ТК	МК	СКП

According to the results, among the most important competencies of the manager-leader for effective project management are professional, social/cultural and interpersonal competence, and important – interpersonal, technical and social/cultural competence. This shows that effective leadership requires competencies in the areas of:

1. The formation of project teams; of planning, organizing, coordinating, controlling; of team affiliation formation;
2. Competencies for applying the right approach and style in management, commitment and courtesy; appropriateness of their application in a certain social context; continuous communication and feedback; manager's attitude and behavior that transfer to the project environment and team, as well as competencies to lead project teams composed of diverse members; of multicultural teams;
3. Competencies for building trust, team building, support, integrity; for an individual approach to each team member; for early identification of conflicts and solutions for their resolution

It is noteworthy that social/cultural competence is present as very important and as important, which confirms the role of "soft" skills in project management. The results obtained here also confirm those from Figure III.10., which bring out the importance of trust and respect in communication interactions for the respondents, as well as that of social, cultural and behavioral competence, proposed in the competency models in Chapter One (Figure I.1 .Model of project team managers and Figure I.2.Model of communication competence in project management).

The results in **Figure III.25. Effectiveness in communications in the execution of projects** show that there is again some hesitation among the respondents about the effective management of communication, as the answers "in most cases" predominate. It is also striking here that the respondents "rarely" and "no" are almost as many as those who answered "yes" and "often".

Therefore, gaps and/or deficiencies in project communications management can be allowed, which hinders their effectiveness. This may be due to a lack of sufficient communication competence, both overall and by its components / individual competences from the model of communication competence in project management (Figure I.2.).

The results in **Figure III.26. Participation in failed projects due to communication problems and ineffective management of communication processes** show that slightly more than half of the respondents were not part of a project that ended in failure due to communication problems and ineffective management, but their number is close to that of the participants in failed projects. I assume that such failures can be due to:

- Inefficient leadership in project management;
- Inefficient leadership in communications management;
- Lack of competencies of the manager-leader in project and team management (in accordance with the proposals in Figure I.1. Model of competencies of project team leaders);
- Lack of communication competences of the manager-leader (in accordance with Figure I.2. Model of communication competence in project management).

From the point of view of communication competence, I also allow the possibility that their absence and/or deficiency will negatively affect the success of the project both from the position of the manager-leader and from that of the members of the project team. Consequently, members may also lack the necessary communication competence to fulfill their assigned roles and assigned responsibilities in the project.

The results in **Figure III.27. Desired changes in communications management and Table III.6. Desired changes in communication management** show that the respondents in the survey wish first of all to improve the communication competence of project participants, followed by more effective planning and increasing trust, sharing between the parties.

The desired change confirms the importance of communication competence, along with professional competence, as well as the role of "soft" skills in project and communication management. Feedback as a useful tool is likely to be associated with effective leadership as well as project and team management competencies of the manager-leader (as suggested in Figure I.1. Competency Model of Project Team Leaders).

The open-ended question in the survey, **"What would you recommend to be improved in terms of communication and communication processes in project management?"** received a variety of responses, but they converged around the view that changes to improve communications in project management should be aimed at to:

1. Encouraging continuous and stricter communication planning practices, setting clear goals during each phase of the project and continuous control (and revising if necessary) of the communication processes defined in the plan;
2. Planning of well-defined weekly meetings (in the answers of the respondents this is repeatedly referred to as "operative" - b. a.), at which individual and group feedback is provided by the manager to the project team on the execution of the tasks and on the results of the participants;

3. Provision / organization of trainings for the acquisition of a richer set of communication competences, incl. with the different parties on the project (which can also be interpreted as a focus on social and cultural competence), i.e. to be able to communicate effectively with all parties in the project – both managers with teams, and between teams themselves, between them and stakeholders, etc.;
4. Many of the respondents indicate that they lack specific communication skills and recommend that, before conducting trainings, it should be tracked / certified by an appropriate method what their level is and the gaps that prevent them from being effective in their communication interactions;
5. Increasing motivation, commitment of the team to the project, maintaining a constant level of importance and significance of the tasks of each participant. According to the researched, this will also increase the trust between the parties, encourage the transfer of knowledge (including from the manager to the members), increase the levels of sharing and support in the teams and between all parties in general.

3.3. Conclusions and conclusions after the conducted empirical research

After analyzing the results of the study, the following conclusions can be drawn:

- Respondents have experience as project participants, occupying the roles of project team members, managers/leaders and stakeholders.
- The frequency of their participation in projects implies the presence of professional competence (incl. communication) and personal characteristics, incl. and communication competences in interactions with other cultures and environments (cultural competence).
- Communications are important in the execution of tasks and activities in a given project.
- Both professional and technical competence as well as social, cultural and behavioral competence are significant for effective communications, as trust and respect in communication interactions is most important for respondents, followed by planning, management, control of communications and continuous feedback.
- Communication competence and its individual components are important, which also confirms the need for the leader to possess a set of systematized communication competences and values and to apply effective leadership and communication strategies.
- Respondents associate the communication plan both with the effective implementation of project goals (based on good planning) and with the building

of trust between participants with a focus on common cooperation and ways to achieve these goals.

- Evaluations of the plan's effectiveness are not used, but feedback is provided and regular meetings are organized and surveys are conducted.
- Various communication barriers are encountered which may be due to lack of communication competence as well as ineffective leadership.
- There is some hesitation in following the communication processes (planning, management, control) in project management, which may be due to a lack of communication competence, as well as ineffective leadership; of professional and technical competence.
- It was found that the respondents are well informed about the activities and tasks for which they are responsible in the projects, which indicates a good management of information resources, possibly also following communication strategies.
- A low degree of effectiveness in communications on the part of managers-leaders was found, which speaks of deficits in communication competence and management effectiveness. Efficiency strategies are probably not being implemented either. The same applies to the effectiveness of communication between project team members.
- There are gaps and deficits regarding the cultural competence of managers.
- Communication barriers in intercultural communication are dictated by the lack of insufficient communication competence, as well as social and cultural competence.
- Among the most important competencies of the manager-leader for effective project management are professional, social/cultural and interpersonal competence, and important – interpersonal, technical and social/cultural competence
- I admit the existence of gaps and/or deficits in the management of communications in the projects, which hinders their effectiveness. This may be due to a lack of communication competence.
- A significant number of respondents were found to have been part of a failed project/s.

In the conducted empirical study, respondents indicated that in project management communications, it is desirable to improve the communication competence of project participants, followed by more effective planning and an increase in trust, sharing between the parties.

After a thorough analysis of the respondents' answers, it can be summarized that:

1. The results identified gaps and/or deficits in project management as well as project communication management. A low degree of effectiveness in communications on the part of managers-leaders was found. This confirms the first admitted hypothesis that a complex of competencies is needed for successful project management.
2. A low degree of effectiveness in communications between project team members was found. The results and what the respondents indicated that it is desirable to improve in project management communications also confirm the third admitted hypothesis that in order to achieve management effectiveness, the project team and stakeholders also need a certain set of competencies

Based on the obtained results and confirmed hypotheses, I offer some guidelines and recommendations for overcoming the identified problems, improving the effectiveness of communication management and management; increasing the competence of managers-leaders and project members, as well as improving their overall performance in communication processes.

3.4. Guidelines and recommendations for improving communications in project management

After a thorough analysis of the respondents' answers, it can be summarized that:

1. The results identified gaps and/or deficits in project management as well as project communication management. A low degree of effectiveness in communications on the part of managers-leaders was found. This confirms the first admitted hypothesis that a complex of competencies is needed for successful project management.
2. The results identified various communication barriers, incl. barriers in intercultural communication, as well as a high number of respondents involved in unsuccessful projects. This may be due to a lack of communication competence on the part of the manager-leader and ineffective leadership, which confirms the second admitted hypothesis that the lack of competence of the manager is a barrier to successful project management.
3. A low degree of effectiveness in communications between project team members was found. The results and what the respondents indicated that it is desirable to improve in project management communications also confirm the third admitted hypothesis that in order to achieve management effectiveness, the project team and stakeholders also need a certain set of competencies.

Therefore, **recommendations for improving communications in project management are made in the following areas:**

1. Improvement of communication efficiency on the part of the manager-leader, by increasing the necessary set of competencies;
2. Overcoming communication barriers and increasing the success rate of projects, by increasing the necessary set of competencies as well as improving the effectiveness of the manager-leader;
3. Improvement of communication efficiency between members of project teams and stakeholders, by increasing their competencies.

Improvement of effectiveness in communications on the part of the manager-leader, by increasing the necessary set of competencies

To increase the necessary complex of competencies that the manager-leader needs to improve his performance and effectiveness in communications, I recommend the application of models such as:

1. Competence model of project team leaders (Figure I.1.);
2. Model of communication competence in project management (Figure I.2.);
3. Communicative competencies for the project manager (Figure II.6.).

By applying the Model of Competences of Project Team Leaders (Figure I.1.), the manager-leader has the opportunity to increase his set of competencies. At the same time, they are grouped by main competence categories. In this direction, I propose systematized competencies of the manager-leader in accordance with the Managers' Competencies Model, presented in Table III.7. Systematized competencies of the project manager-leader.

Since the dissertation focuses on communication and its role in project management, I next recommend increasing the necessary set of communication competencies of the manager-leader. For this, I propose the application of the Communication Competence Model in project management (Figure I.2.) and systematize the communication competences of the manager-leader, according to the selected model in **Table III.8. Systematized communicative competences of the project manager-leader.**

Overcoming communication barriers and increasing the success rate of projects by increasing the necessary set of competencies as well as improving the effectiveness of the manager-leader

Recommendations for overcoming communication barriers, therefore - and increasing the success rate of projects - should go in two directions:

By applying the proposed models: (1) of competencies of project team leaders (Figure I.1.) and (2) of communication competence in project management (Figure I.2.) from the previous guidelines. In this regard, the manager-leader should increase his necessary complex of competences, striving to improve the set of systematized competences (Table III.7.) and systematized communicative competences (Table III.8.).

The improvement of the derived competencies should increase the communication efficiency, while at the same time overcoming the communication barriers between the project participants. It should be noted that together with the enhancement of the competences of the manager-leader, the overcoming of communication barriers should also be sought in the project management itself and the management of communications in the project. The reported results of the study show (apart from gaps in competences) also a worrying number of failed projects, which also suggests an increase in the performance of the manager-leader in relation to his management. Тук отправям препоръки по второто направление: във връзка с подобряване на ефективността на ръководителя-лидер.

As a basis for improvement, I suggest first to implement a management model. I believe that the project management model (Figure I.3.) is fit for purpose. The manager-leader should know well all the phases / stages of the project cycle (initiation, planning, execution, closing), as well as all steps of the management of this cycle (planning, organizing, monitoring and control, evaluation). What is useful about the application of this model is that it shares the idea of project management at all times, with the manager-leader planning, organizing, monitoring/controlling and evaluating at every single phase of the project cycle. Graphically presented in Figure I.3. Project management model, refined, supplemented and developed in Table III.9. Management functions of the manager-leader during the project cycle.

Along with the application of the proposed model, I believe that the manager-leader should also apply strategies for managing communications in projects. Depending on the scope of the project (whether it is international or not; whether there are participants from other cultures in the project team or stakeholders or not), I suggest a Project Communication Management Strategy (Figure I.8.) and a Communication Management Strategy in international projects (Figure II.4.). If this is taken into account, overcoming communication barriers would be easier and communication interactions much more effective. The author repeatedly mentioned the specifics of international projects and the differences with local project management. Therefore, I believe that taking into account cultural differences and the factors of the international project environment by the manager-leader, he/she should also apply different communication management strategies. Moreover, applied in combination of these two types of strategies, together with the improved complex of competencies (with a focus on communicative and cultural), overcoming communication barriers on the part of the manager-leader should also increase the effectiveness in project management as a whole. To the increase of efficiency in project management and communication management, I also add the application of:

1. Strategies for achieving efficiency;
2. Model for effective leadership (Figure II.7.).

In connection with the strategies for achieving efficiency, I specify their possible ways of application in relation to a given phase of the project, a specific situation, participant or communication interaction in **Table III.10. Application of strategies to achieve effectiveness in management.**

In relation to the **Effective Leadership Model (Figure II.7.)**, I consider it suitable for increasing effectiveness in communication management, for several reasons:

1. The model combines both the managerial and the leadership role of the manager;Предлага конкретни стъпки по време на целия проектен цикъл;
2. It includes the application of the models and strategies already proposed above for project management, for communication management, for increasing the efficiency and better performance of the manager-leader;
3. At the same time, this model also includes the proposed set of competencies in combination with the personal characteristics and values of the manager-leader;
4. The model is comprehensive as it includes the effective management of both the project (and all its phases) and project communications and the project team.

In Table III.11. **Application of specific models and strategies in accordance with the Model for effective leadership (Figure II.7.)** I present the possible models and strategies for application in each project phase and communication stage, in relation to the Model for effective leadership (Figure II.7.).

Improving communication efficiency between project team members and stakeholders by increasing their competencies

The last recommendation is to improve the communication efficiency between the members of project teams and stakeholders, by increasing their competencies. In this regard, I can recommend the enhancement of some competencies, for the systematization of which I will use the proposed models: competencies of project team leaders (Figure I.1.), of communication competence in project management (Figure I.2.), systematized communicative competencies for the project manager (Figure II.6.), and which I adapt to the needs of project teams and stakeholders. I believe that to improve the communication efficiency between the members of project teams and interested parties, they need a set of competencies proposed in **Table III.12. Systematized communication competencies of project team members and stakeholders.** This complex contains: language / grammar competence; social competence; cultural competence; technical competence and behavioral competence, including a set of separate competences for each of them.

The recommendations addressed to managers-leaders can help to increase effectiveness in communications, as they imply the elimination of gaps through the development of a richer set of competencies. This complex also helps to overcome communication barriers. Increasing the effectiveness of communications between project team members and stakeholders can also be achieved by developing the necessary set of competencies.

I believe that the proposed models, strategies and set of competencies can be useful for project managers, project teams and stakeholders, both in local and international contexts. Also, they can be applied to the management of projects that are part of project-oriented organizations and/or those that manage a portfolio of projects (where certain participants may be members or stakeholders in more than one project at the same time). Communication management strategies and performance strategies suggest application in a similar context, as they can be combined and combined with each other, while also using models of effective leadership.

The overcoming of communication barriers, the success of projects and the effectiveness of communication management can be influenced precisely through an appropriate set of competencies. It is important to note that the competencies, incl. systematized communication competences should be evaluated and revised by the managers-leaders, by the project members and stakeholders, because the dynamics of the environment, the scope of the projects, the ever-higher requirements for performance and quality, as well as a number of other factors, will always affect the effectiveness of communications. Therefore, the development and addition of new competencies over time implies better management of communication processes and better performance of managers-leaders and all participants.

In summary of the Third Chapter, the following conclusions can be drawn:

Empirical research involves the collection of primary and secondary data;

1. A survey method was used, through which the results of 143 respondents were processed;
2. Men and women of different ages, highly educated, participate in the study; with different work experience and in different positions;
3. After analyzing the results, the author summarized that successful project management requires a set of competencies; that the manager's lack of competence is a barrier to successful project management; that to achieve effectiveness in management, the project team and stakeholders also need a certain set of competencies.
4. Based on the obtained results and confirmed hypotheses, the author proposed guidelines and recommendations for overcoming the identified problems;
5. Recommendations for improving communications in project management are made in the following areas:
6. Improvement of communication efficiency on the part of the manager-leader, by increasing the necessary set of competencies;
7. Overcoming communication barriers and increasing the success rate of projects, by increasing the necessary set of competencies as well as improving the effectiveness of the manager-leader;
8. Improvement of communication efficiency between members of project teams and stakeholders, by increasing their competencies.

III. SCIENTIFIC CONTRIBUTIONS OF THE DISSERTATION

1. Author's definitions are proposed for:

- Communication;
- Project and project management;
- Project team;
- Project risk and risk management in projects;

- Management of communications in projects;
- Cultural identity.

2. The following models are proposed:

- Competence model of project team leaders;
- Model of communication competence in project management;
- Project management model;
- A model for effective leadership.

3. A Management Map of "risks-threats" and "risks-opportunities" is proposed in accordance with the main components of the project.

4. An additional component is proposed in the management of communications in international projects: cultural identity (problems / barriers and impact tools).

5. The following strategies are proposed:

- Strategy for managing communications in projects;
- Communication management strategy in international projects;
- Strategies for achieving efficiency.

6. Application of the models, strategies and set of competences made as recommendations:

- Systematized competencies of the project manager-leader;
- Systematized communicative competences of the project manager-leader;
- Management functions of the manager-leader during the project cycle;
- Application of strategies to achieve efficiency in management;
- Application of specific models and strategies in accordance with the Model for effective leadership;
- Systematized communicative competences of project team members and stakeholders.

LIST OF SCIENTIFIC PUBLICATIONS

1. Bojkov, D., **Nanova, M.** (2022): Communication in project management in municipalities/Communication in project management in municipalities, Collection of reports from an international roundtable Local self-government: how from the circle of the underdeveloped/Local self-government: how from the circle of the underdeveloped,

Publisher: Galaksianis, Сврљиг, Србија, ISBN 978-86-6233-440-4, COBISS.SR-ID 714606117, pp. 103-112,

2. Boykov, D. & Djordjevic, S. & **Nanova, M.** (2022): *Roles in project teams*, Current trends in the development of the new public management, Macedonian international journal of marketing „Marketing“, Skopje, Year 9, No.13; ISSN 1857-9787. Пп. 28-37.
3. Ћорђевић, S., **Nanova, M.** (2021): Team work - a success factor/ Team work - a success factor in the thematic collection "Local Self-Government: Kako iz kruga nerazvijenih", Steel Conference of the City and Municipality, Savez Gradova and Municipality of Srbije, Belgrade, ISBN 978-86-8048030-5. pp. 361-372.

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