UTILISATION AND IMPROVEMENT OF THE INITIALISATION OF PROJECT COMMUNICATION PROCESSES DURING THE MANAGEMENT OF PROJECTS IN INDUSTRIAL ENTERPRISES IN SLOVAKIA

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Abstract

Nowadays, project communication is slowed due to the need for compliance with strict rules. Therefore the aim of this paper is to analyse the use of the communication environment as a basic part of the initialisation of project communication in industrial enterprises in Slovakia, and to propose measures to improve the process of initialisation of project communication in these enterprises. In this paper, theoretical and empirical research (quantitative and qualitative) approaches were chosen. On the basis of the research we can conclude, that communication as a basic part of the "Initialisation of project communication" is not adequately elaborated in international methodologies and standards of project management and in industrial enterprises. Industrial enterprises do not deal with processes of the communication environment and this results in negative consequences.

Key words

Project management, project communication, communication environment, initiation of project communication

INTRODUCTION

Slovak enterprises perceive Project Management to be a way to improve their competitiveness (Brieniková et al., 2010). In the context of the unique activities of organisations – projects are becoming more and more important (Relich, 2010). Project Management contains elements such as management of time, cost, communications, procurement, quality, risk or the scope of project (Relich, 2012).

Nowadays, projects typically have a large number of dimensions. They need a lot of time and resources for implementation. They use a large amount of funds and it is unrealistic for each employee to be driven by themselves. Therefore, project managers are responsible for

projects. A good project manager must be able to organise resources, to plan and prepare procedures, to define cost, schedule, manage team performance, and in particular they must be able to communicate effectively (Svozilová, 2006).

What is the relationship between communication and project management? The answer to this question is not simple, because these two concepts are interrelated. Effective communication is one of the main elements of project management, and therefore it is necessary to be constantly engaged with communication (Longman, 2007).

In projects, the communication is slowed due to compliance with strict rules. Therefore the aim of this paper is to analyse the use of the communication environment as a basic part of initialisation of project communication in industrial enterprises in Slovakia and to propose the measures to improve the process of initialisation of project communication in these enterprises.

PROJECT COMMUNICATION MANAGEMENT

Project communication is a very important aspect. The common management skill of effective communication is crucial to project access because project management involves formal and informal communication at different levels in the organisation. Such communication includes all the activities and behaviour by which information or ideas are transferred between the project manager and individuals working on the project. The project manager must give directions, hold meetings, and relay information and ideas to and from the project team members, superiors, clients, contractors, functional managers, other project managers and outsider personnel (Verma, 1996).

Communication is the basis of everything and is thus the key to effective project management. Even in biblical times, the importance of project communication was contained in the chronicle of the Tower of Babel, whereby it was reported that God caused a construction project to fail by interrupting communication through the creation of multiple languages. Without a common basis for communication, any project is bound to fail. Communication is the basis for project performance in any organisation. Information is power, and those who have it will hold the key to project success (Badiru, 2008).

For project communication in addition to the project manager also the orientation of the company has a great effect upon whether the enterprise is functional-oriented, process-oriented or project oriented.

THE COMMUNICATION ENVIRONMENT AS A BASIC PART
OF THE "INITIALISATION OF PROJECT COMMUNICATION"

In the theoretical part of the paper we will describe the communication environment as a basic part of the initialisation of project communication. Within the communications environment it is very important to define the terms: communication strategy, project organisational structure and culture project which have a significant impact on project communication.

Communication strategy - Regardless of the objectives of a project, defining a communication strategy shows attention to planning, an ability to carry out the work, and clear identification of the goal. The ability to communicate is essential to the success of any undertaking and an important factor in the achievement of its objectives. Communication does not just happen. It must be organised, developed and built. The first step in the process is

to define a communications strategy. A good communication strategy allows you to exercise better control over your work. A communications strategy removes doubt, emphasises planning, and involves all the project participants (Geraldes, 2010).

Project culture - Project managers have a unique opportunity during the start-up of a project. They create a project culture. Schein also described organisational culture as an abstract concept that constrains, stabilises, and provides structure to the organisation. At the same time, culture is being constantly enacted, created, and shaped by leadership behaviour. A project culture represents the shared norms, beliefs, values, and assumptions of the project team. Understanding the unique aspects of a project culture and developing an appropriate culture to match the complexity profile of the project are important project management abilities (Clements et al., 2012).

Project organisation structure - Each project has its unique characteristics and the design of an organisational structure should consider the organisational environment, the project characteristics in which it will operate, and the level of authority the project manager is given. A project structure can take on various forms with each form having its own advantages and disadvantages. One of the main objectives of the structure is to reduce uncertainty and confusion that typically occurs at the project initiation phase. The structure defines the relationships among members of the project management and the relationships with the external environment. The structure defines the authority by means of a graphical illustration called an organisation chart. A properly designed project organisation chart is essential to project success. An organisation chart shows where each person is placed in the project structure (PM4EV, 2007).

MATERIALS AND METHODOLOGY OF THE EXPERIMENT

The aim of this part is to define the main purpose of the paper, to describe research questions which were explored in this paper and to describe the methodology of the survey - theoretical research and empirical research.

The aim of the paper is to analyse the use of the communication environment as a basic part of the initialisation of project communication in industrial (functional, process and project oriented) enterprises in Slovakia and to propose measures to improve the process of initialisation of project communication in these enterprises.

Research questions – hypothesis

In the contribution were chosen two research questions, which will be pursued in the following, practical part of the article – Reached results:

1. Is the communication environment elaborated in international methodologies and standards of project management (ICB®, PMBOK®, PRINCE2® and ISO 1006 STN)?
2. Does the process and project-oriented enterprises in Slovakia deal with the process of initialisation of project communication during management of the project?

Research methodology

Before we will describe and analyse the project communication in Slovak industrial enterprises, we will start with the comparison of initialisation of project communication on the basis of the _**theoretical research**_ of international project management standards and methodologies.

The aim of the theoretical research was to analyse the design of initialisation of project communication in international methodologies and standards of project management. The aim was to determine whether in the methodologies and standards are defined the steps of initialisation of project communication. For the comparison we have selected: standard ICB$^®$ (IPMA$^®$ Competence Baseline) issued by IPMA$^®$ (International Project Management Association$^®$), methodology PMBoK$^®$ (Project Management Body of Knowledge$^®$) issued by PMI$^®$ (Project Management Institute$^®$), methodology PRINCE2$^®$ (Project in a Controlled Environment$^®$) issued by OGC (Office of Government Commerce) in UK and standard STN ISO 10006 (Quality management systems – Guidelines for quality management in projects).

Besides theoretical research we also made _**empirical research**_ which was realised through _**quantitative and quantitative research**_ of the communication environment as a basic part of initialisation of project communication in functional, process and project-oriented enterprises.

Qualitative research of the initialisation of project communication was served as a pilot study. The aim of the research was to analyse how project managers understand the problems of project communication management in practice and whether the project managers deal with the communication environment as a basic part of initialisation of project communication. In the research, three medium-sized industrial enterprises were interviewed (the number of employees from 50 to 249) and one large industrial enterprise (over 250 employees). Information about initialisation of project communication has been identified through in-depth individual interviews - semi-structured.

Qualitative research of project communication management was chosen because it is very effective and easily quantifiable. Information about initialisation of project communications was conducted by questionnaire. The research consisted of 128 industrial companies which use project management. The aim of the questionnaire was to analyse how is project communication management elaborated in industrial enterprises in Slovakia and whether the industrial enterprises deal with the communication environment as a basic part of initialisation of project communication. The survey was conducted in 85 small, medium and large industrial enterprises in Slovakia (128 respondents), which were functional-oriented, process-oriented and project-oriented.

RESULTS

The following part of the paper includes a description of the basic results of the theoretical and empirical research.

Theoretical research – Analysis of the communication environment as a basic part of "Initialisation of project communication" according to the selected project management methodologies and standards

For the comparison we selected: standard ICB$^®$, and the methodologies PMBoK$^®$ and PRINCE2$^®$ and the standard STN ISO 10006.

The most important areas that make up the communications environment and should be the main parts of the initialisation of project communication are: communication strategy, project organisational structure and project culture. These three areas were examined in international methodologies and standards of project management.

Comparison of the above mentioned project management methodologies and standards are very difficult because of their different concepts and objectives. Moreover they differ also

in terms and vocabulary. They apply different areas of knowledge, tools, techniques, procedures, material presentation and other aspects of project communication.

International standards and methodologies of project management describe those elements only generally and characterise them very little or not at all. The analysis shows that it is necessary to deal with the communication environment as a basic part of the initialisation of project communication. A comprehensive summary of the standards and methodologies are shown in table 1.

Table 1: Comparison of the communication environment as a basic part of "Initialisation of project communication" according to the selected project management methodologies and standards (own processing)

Monitored elements	Project management methodologies and standards			
	ICB®	PMBoK®	PRINCE2®	STN ISO 10006
Communication environment				
Communication strategy	☒	☒	✓	☒
Organizational structure	☑	☑	☑	☒
Project culture	☒	☒	☒	☒

Explanatory Notes
   ☒   methodology or standard does not include a specific element
   ☑   methodology or standard describes the element only briefly
   ✓   methodology or standard describes in detail, what the specific element addresses

Empirical research – Analysis of the communication environment as a basic part of the "Initialisation of project communication" in industrial enterprises

In empirical research was performed both qualitative and quantitative research. The results are shown in the following, practical part of the paper.

QUALITATIVE RESEARCH OF THE COMMUNICATION ENVIRONMENT

According to the qualitative research which was conducted through semi-structured in-depth individual interviews, we can conclude the following results (table 2):
-   Industrial enterprises in Slovakia deal only little with the communication environment as a basic part of the initialisation of project communication" in industrial enterprises;
-   Industrial enterprises argue that it is necessary in the context of project communication to deal with the communication strategy and organisational structure;
-   Project culture constitutes an important part of project communication, especially during management of international projects and management of communication in these projects.

A comprehensive summary of the qualitative research is shown in table 2.

Table 2: Processing of qualitative research (own processing)

GENERAL INFORMATION				
	Enterprise A	**Enterprise B**	**Enterprise C**	**Enterprise D**
Size of enterprise	Large (over 250 employees)	Medium-sized (50-249 employees)	Medium-sized (50-249 employees)	Medium-sized (50-249 employees)
Sector	automotive industry	engineering industry	engineering industry	chemical industry
Job position	Project manager	Project manager	Project manager	Project manager
Analysed project	Large project (duration minimum 12 months)	Large project (duration minimum 12 months)	Medium-sized project (duration minimum 3 months)	Small project (duration minimum 2 months)
Methodology/standard of project management	own methodology	own methodology	PMBoK®	ICB®
Using the management of project communication according the methodology/standard of project management	yes	yes	only partially	no

| Does your document – methodology of project communication management content following elements of the communication environment?				
Communication strategy	☑	☒	☒	☒
Organisational structure	✓	☑	✓	✓
Project culture	☒	☒	☒	☒

Explanatory Notes ☒ methodology or standard does not include a specific element
☑ methodology or standard describes the element only briefly
✓ methodology or standard describes in detail, what the specific element addresses

QUANTITATIVE RESEARCH OF THE COMMUNICATION ENVIRONMENT

On the basis of the results of quantitative research which was conducted via questionnaire research we can conclude the following findings:
- The individual areas of the communication environment (communication strategy, project organisational structure and project culture) are not sufficiently included in the functions, processes and project-oriented industrial enterprises;
- With the above areas are most often engaged project-oriented enterprises but there are relatively low percentages, too.

The level of usage of each areas of the communication environment as a basic part of initialisation of project communication in small, medium-sized and large projects is shown in Graph 1. This graph shows the main areas of the communication environment in functional-oriented industrial enterprises in Slovakia. On the basis of this graph we can conclude that functional-oriented enterprises most often deal with project organisational structure (in particular during management of medium-sized and large projects).
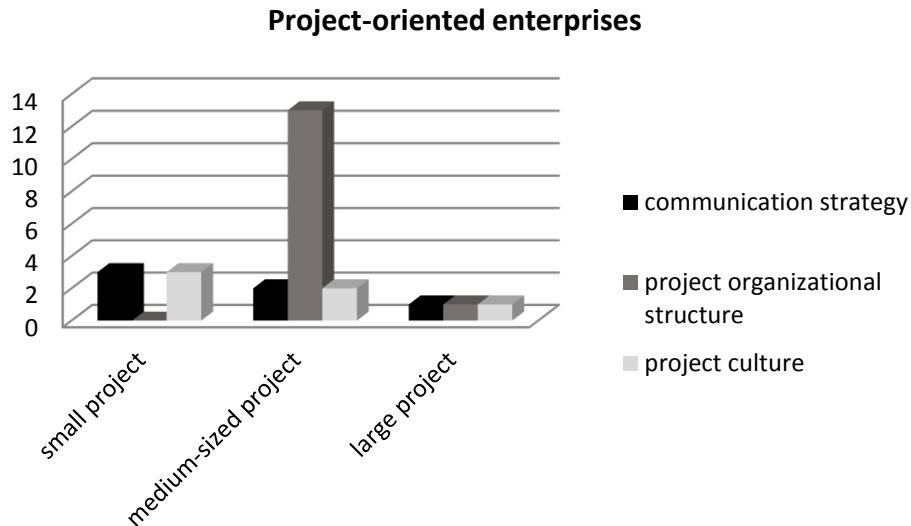
Functional-oriented enterprises
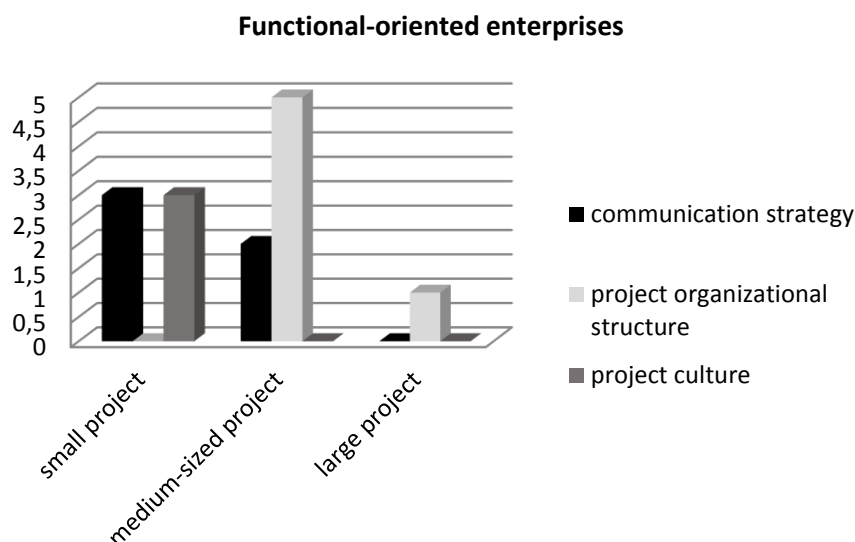
Fig. 1 *Analysis of the communication environment in function-oriented enterprises (own processing)*

On the basis of graph 2 we can conclude that process-oriented enterprises in Slovakia most often deal with mainly project organisational structures and communication strategy.

Process-oriented enterprises
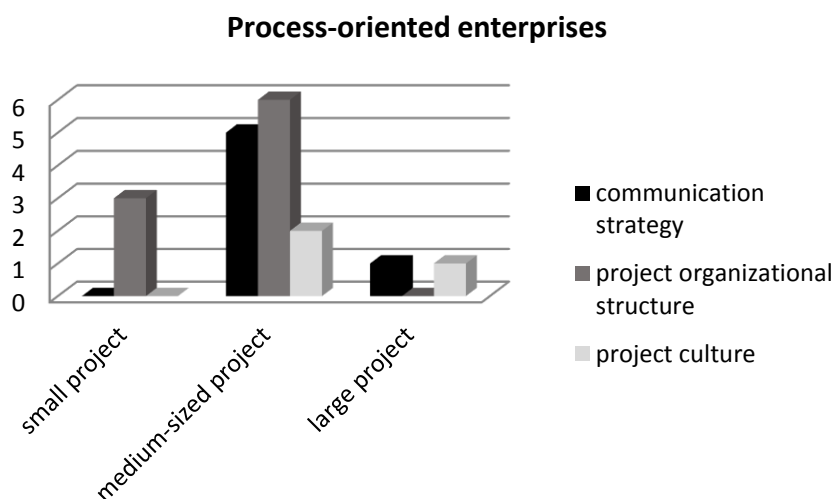
Fig. 2 *Analysis of the communication environment in process-oriented enterprises (own processing)*

The similar results were also shown for project-oriented enterprises in Slovakia (Figure 3).

Project-oriented enterprises

Fig. 3 Analysis of the communication environment in project-oriented enterprises (own processing)

In the following Table 3 there are comprehensive assessments of individual areas of the communications environment as a basic part of the initialisation of project communication during management of the project. Under the percentage values there is calculated a 95 % confidence interval.

Table 3: The percentage of enterprises engaged in the communication environment (own processing)

	Functional-oriented enterprises		Process-oriented enterprises		Project-oriented enterprises	
Are you dealing with the communication environment during management of project?	**YES**	**NO**	**YES**	**NO**	**YES**	**NO**
COMMUNICATION ENVIRONMENT						
*Percentage	**17 %**	83 %	**30 %**	70 %	**24 %**	76 %
**Confidence interval	<10 ; 26>	<74 ; 90>	<18 ; 42>	<18 ; 42>	<58 ; 82>	<66 ; 84>

DISCUSSION

The communication environment as a basic part of the "Initialisation of project communication" is one of the processes which is not included in international methodologies and standards of project management. Therefore we propose the procedure of process for initialisation of project communication, which is shown in Figure 4.

The objective of the communication strategy is to ensure effective sharing of information during the project. A well-prepared communication strategy enables greater control over the work during the project.

During the management of the project it is appropriate to create a flat organisational structure which is more flexible compared to hierarchical structures.

After elaborating the communication strategy and creating an organisational scheme of project communication it is necessary for the project to propose the process of improving

project culture which has a significant impact on project communication. Project culture is a way to observe and improve communication relationships between members of the project and it improves the using of methods and forms of communication during the management of the project.
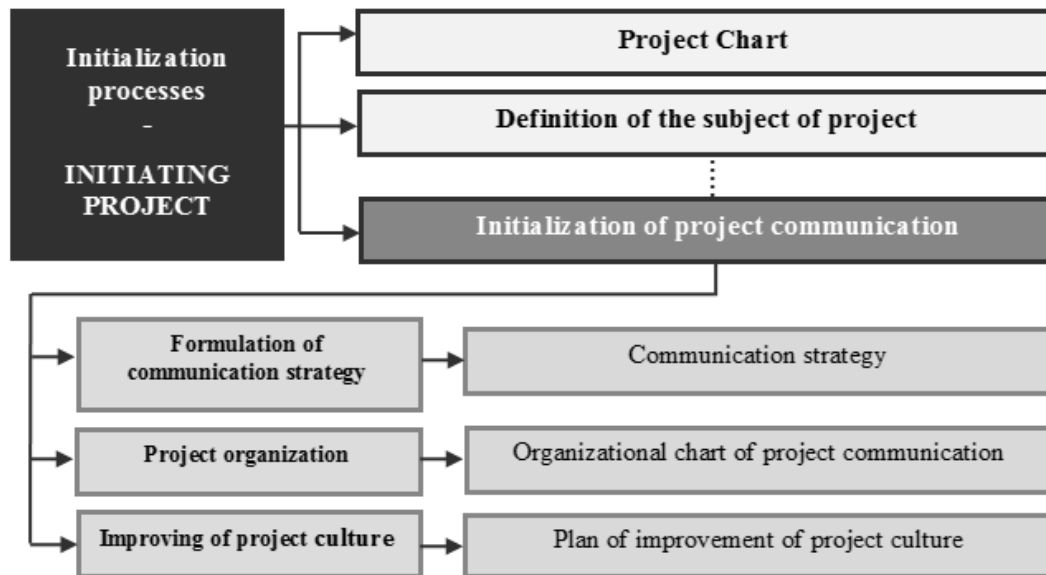
Fig. 4 *Initialisation of project communication (own processing)*

CONCLUSION

The present economy is full of turbulent changes, both social and technological, which create completely new conditions for a company´s activity (Cagáňová, D., Čambál, M., Stachova., K., Stacho 2014), (Čambál, M., Cagáňová, D., Šujanová 2012), (Relich, M., Witkowski, K., Saniuk, S., Kuzdowicz 2014). Enterprises need a new way for management and it is project management. Project management has a particular significance. Especially, the identification of project success or failure is desirable, which is usually connected with specific methods and techniques (Relich and Banaszak, 2011). Communication plays an important role in project management. Effective communication helps to gain interpersonal acceptance and commitment and can also serve as a good motivating factor. A very important area in the project communications is especially the communication environment as a basic part of initialisation of project communication. This area includes communication strategy, project organisational structure and project culture which have a significant impact to project communication. Therefore it is necessary to deal with project communication during management of a project.

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