BABES-BOLYAI UNVIERSITY FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION MANAGEMENT DEPARTMENT



DOCTORAL THESIS

Summary

The usefulness of management practices in projects financed by structural funds for human resources development in Romanian universities

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TABLE OF CONTENT

Table of content – Doctoral thesis	3
Key words	6
Introduction	6
Research objectives	8
Research methodology	8
Thesis structure	11
Conclusions	15
Personal contributions	18
Research limitation	20
Future research perspectives	21
Selective bibliography	22

Table of content – Doctoral thesis

Abbreviation
List of figure

List of tables

INTRODUCTION	1
FIRST PART - LITERATURE REVIEW	12
Chapter 1. Transition towards a new economy, the one based on knowledge	12
1.1 Defining knowledge – the main resource in today's economy	12
1.1.1 Data – information – knowledge relation	14
1.1.2 Types of knowledge	19
1.2 Defining knowledge based economy	21
1.3 European Union and knowledge-based economy	24
1.3.1 Knowledge Economy Index in UE27	26
1.3.2 Knowledge Economy Index in Romania	27
1.4 The importance of structural instruments in a knowledge-based economy	29
1.4.1 Structural instruments – general aspects	29
1.4.2 Developing a knowledge-based economy through Cohesion Policy	33
Chapter 2. Project management – a required process in using European structura	1
instruments	35
2.1 Definitions	35
2.2 Project management	38
2.2.1 Project management office (PMO)	41
2.3 Project performance	45
2.4 European project management in Romania	46
2.4.1 Project cycle management	50
2.4.2 The importance of consulting firms in the field	54
2.4.3 The success of a European project	56
Chapter 3. Knowledge management - a necessary practice in today's economy	59
3.1 Definitions	59
3.2 Knowledge management processes	61

3.4 Project knowledge management	67
3.4.1 Knowledge management within a Project Management Office	69
3.4.2 Barriers that hinder project knowledge management	72
3.4.3 Knowledge management in European projects	74
PART TWO – CASE STUDY – STRUCTURAL FUNDS FOR HUMAN	
RESOURCES DEVELOPMENT IN ROMANIA	78
Chapter 4. Structural instruments for human resources development in Romania .	78
4.1 Structural instruments in Romania – general aspects	78
4.1.1 Legislation, documents that established the framework for using funds	78
4.1.2 European funds for Romania after integration in EU	80
4.2. The importance of human resource in knowledge-based economy	83
4.3 European Social Fund (FSE) in Romania	84
4.4 SOPHRD 2007-2013 diagnosis analysis	87
4.4.1 Quantitative evaluation	88
4.4.2 Problems identified and proposed solutions	95
4.4.3 Qualitative evaluation by using Focus-group research method	99
4.5 Conclusions and recommendations	.107
Chapter 5. Analysis of European funds for human resources development in	
Romanian universities	. 112
5.1 Universities role in developing human resources and a knowledge-based economy	112
5.2 Analysis of contracted projects by types of beneficiaries	.115
5.3 Using SOPHRD funding by Romanian universities	.117
5.3.1 Funds managed by Universitaria Consortium	124
5.4 Conclusions	128
PART THREE – EMPIRICAL RESEARCH	. 129
Chapter 6. Contributions regarding management practices applicable in Romanian	1
universities in the context of European projects	. 129
6.1 Method of preparation and application of the research instrument	130
6.1.1. Building the questionnaire	130
6.1.2. Questionnaire design	131
6.1.3 Target group	134

6.1.4. Response rate	134
6.1.5. Collecting financial data	135
6.2 Research methodology	137
6.3 Results of the questionnaire data analysis	140
6.3.1 Describing research sample	140
6.3.2 Hypothesis testing	143
6.3.3. Highlighting elements that can influence the project performance	179
6.4 Conclusions on the empirical study	200
CONCLUSIONS	203
Personal contribution.	207
Research limitations	208
Future research perspectives	210
REFERENCES	212
ANNEXES	224

Key words: management, project, knowledge, universities, human resource, European funds, project management office, project success

Introduction

Today we are facing a shift from an economy based on primary factors of production (land, labor, capital) to one that is focusing on knowledge had by a person, as an important factor that is needed to achieve a competitive advantage. Knowledge is important due to its intangibility and because it has no ending, being continuously generated and created. In this context, the knowledge based economy was birth and accentuated by globalization and the development of information technologies and communication. Every country that wants to be or become competitive wants to get closer and closer to what knowledge based economy stands for.

EU development strategies highlights the focus in this direction, by stating the aim of becoming the most competitive knowledge based economy. Cohesion Policy is a way to achieve this purpose by providing structural and cohesion funds to EU member states in order to reduce the development gap that exist between its region and to invest in the pillars of this new economy and to lead to social and economic cohesion.

In order to use this kind of financial aid, member states must initiate projects in line with the instructions, rules and legislation that exists in the field. Each EU Member State elaborated a document that sets out the way these structural instruments are going to be used, so called the National Strategic Reference Framework (NSRF). So you need to develop a project to be eligible for funding, which you will then receive at different stages of the process. For a better use of allocated funds and to ensure a successful implementation of projects, a proper management of these specific projects became a necessity. There is a wide range of organizations that can benefit from these funds, and here we can include public bodies, private organizations, especially small-medium enterprises, universities, associations, non-governmental organizations. Universities or one of these potential beneficiaries.

Using project more and more often in all areas led to a growing interest in project management and scientific research in the field. This research is going to focus on SOPHRD¹ projects during 2007-2013 programming period. I think it is appropriate to

¹ Sectoral Operational Programme Human Resource Development

initiate a research regarding projects submitted within this operational program by universities in order to develop a qualitative project management. This will lead to better projects, with visible results and desired impact, an efficient communication with management authority and in the end to a higher absorption rate.

Some Romanian universities, in order to assure a better management of structural and cohesion funds, created an internal department to deal with European projects. These offices has the responsibilities of a consultancy firm due to the fact that this kind of funding requires a lot of knowledge, experiences, a lot of information to deal with, new instructions, procedures. It is hard to be up to date when you are not in a continuous interaction with them. The research will be directed towards these departments to be able to see if it manages the knowledge created, if its members apply the practices associated with knowledge management. But also, we want to see if these offices can be linked to project management offices or limited to administrative activities, informing potential beneficiaries, archiving etc. A lot of expertise and valuable knowledge is generated by interacting with project managers from different fields and projects, which needs to be shared with others to gain trust in this system and to acknowledge what can be done in order to have success in dealing with nonrefundable European funds.

This research can be considered interdisciplinary as it is based on the premise that a combination of practices in project management and knowledge management can lead to better management and performance of the entire mechanism of using European funds. Therefore, it aims to identify how two management practices (projects and knowledge) can merge in dealing with European projects. The practical part is going to be channeled to projects financed from SOPHRD within universities in Romania, by identifying and analyze management practices that apply into this context. I thought about the opportunity to investigate these field as a result of my practical experience gained as a member of project teams in Babes-Bolyai University.

I believe that the management of these projects in universities can be improved by identifying practices and factors that can lead to a higher success rate, using more effective these funds and to achieve results with greater impact on economic and social development. We choose to investigate SOPHRD project management in universities in Romania because I believe that human resources plays a very important role in

development and can lead to attaining the objectives set at national and European level on this plan. Human resource can be considered a forerunner of development, due to the fact that it has one of the most important resources in today's economy: knowledge. Regarding the link with universities, the human resource is the main engine of development, which has the power to change the future. The practical research will be directed towards the European project management within the Romanian universities.

The **main objective** is to realize a comprehensive study regarding management practices that can be used in European projects and also to identify the factors that can lead to a better use of structural funds especially within universities.

Specific objectives:

- define the concepts of "project" and "project management";
- define the concept of "knowledge management", underlying the tools and processes linked to it;
- identify and present the European funding opportunities for member states, especially for universities and evaluating the operational programme for the development of human resources;
- establish the current status of projects financed by Structural and Cohesion
 Funds in Romanian universities;
- highlight the importance of a project management office in entities that manage multiple projects;
- identify ways of using specific elements of knowledge management within European projects;
- increase awareness of knowledge importance and its management in using EU funding opportunities;
- undertake an empirical study in order to highlight the factors that can lead to a better use of European projects and an increased performance from project managers point of view.

Research methodology

First, we are going to focus on a scientific documentation, which includes steps such as data collecting, documentation sources choice. We are going to realize a literature review in order to establish the research level regarding the subject analyzed in this

research. We are going to use as references books published by national and international noted authors, articles that can be found in international publications in areas like project management and knowledge management. Also, due to this research specificity, it is necessary to use electronic sources, official websites (European Commission, Government of Romania). This phase will lead to presenting previous research paths, hypotheses, definitions, different approaches. Based on this, the actuality and necessity of this research will be highlighted, and also new research perspectives.

To obtain relevant results we are going to use both qualitative and quantitative research methods such as: case study, focus-group and questionnaire.

A case study will be conducted regarding the European projects for human resources development, funded through ESF (European Social Fund) / SOPHRD 2007-2013, focusing mostly on the ones managed by Romanian universities. This case study will present an overview on the management of these funds by universities in Romania, stressing the importance of this type of beneficiary in accessing European funding and also will be a starting point in establishing a relevant sample for empirical research.

This study uses a qualitative research method, called focus-group, in order to evaluate SOPHRD in Romania, to identify the beliefs, opinions of the participants in the EU funds accession for the development of human resources. The focus-group was organized by the Management Authority of SOPHRD in Nord-West region, in Romania, held at Cluj-Napoca in November 2014, where I had the opportunity to participate. We could identify the main barriers that beneficiaries of EU funds (within SOPHRD) faced in the period 2007-2013 and to propose solutions that can overcome these problems in the future, focusing on the importance of management practices.

The quantitative methods implies an empirical research based on a questionnaire in order to identify specific management practices used in projects funded through SOPHRD 2007-2013. The managers of European projects within some of the Romanian universities are the component of target group, due to the fact that they are the ones that participated in every stage of project cycle management: idea conception, design, implementation, closing the project, but also specific actions needed post-implementation. Within project teams a lot of knowledge is generated, linked to project execution, ways to communicate with authorities, the application and understanding of

instructions, procedures, ways to overcome the problems, issues that may arise during the project implementation. This knowledge is important for future projects, therefore it will be appropriate to identify ways to manage it to lead to more efficient use of European funds and better implementation of projects to achieve the proposed indicators and activities. We intend to reveal how knowledge linked to EU projects is managed and to provide recommendations to improve the use of knowledge management specific actions in universities and between them.

The questionnaire aims to highlight the importance of creating a department focused on managing European funds in universities and the degree in which it can be associated with a Project Management Office (PMO). An empirical study on these offices, the activities they carry out, its contribution, how to generate, create, share the expertise and knowledge generated during working with this type of projects can reveal important results for the next programming period 2014-2020. I believe that these offices can influence the further development and success in using this king of financial aid. Within these departments, a lot of knowledge is generated, which requires an efficient management to be used with a significant impact over the entire process of writing, implementing, monitoring European projects.

Moreover, we think that is important to mention another qualitative method used in this research: the observation. It is relevant because is based on a workplace observation through effective participation in activities carried out in SOPHRD projects. I have a practical experience of more than four years in project implementation, occupying various positions in management teams in projects financed through SOPHRD within Babes-Bolyai University (UBB). I also had the opportunity to observe how the project are managed from a double perspective, because I took part in these kind of projects also as target group. So, I had the opportunity to observe how European projects are implemented, what this process requires, how universities managed and used structural and cohesion funds. This method was helpful in developing the questionnaire that we are going to use within this research. Even if the relevance of using this method is reduced due to the fact that I accumulated the whole experience in the field within a single university, all projects were managed by the same beneficiary, I believe it can be considered a starting point in identifying relevant practices and elements, which can be subsequently tested on other universities or organizations. Also, I worked closely with some members in European Programs Office within UBB and realized the need and

importance of its involvement in project. I believe that this research can highlight this belief and can lead to acknowledge that these offices are imperative to achieve a better performance in this field.

Thesis structure

This research wants to identify a common point between some topics and fields by using multiple research methods. For a better understanding of its objectives we choose to associate this research with a puzzle and the main purpose is to correctly match the pieces we have to offer a wide perspective regarding these topics (see Figure 1). A puzzle involves a mix of items and solving it requires an open mind, perseverance, initiative, personal insight on final image, but also paying particular attention to each piece separately. Research puzzle starts from a number of topics such as: project management, knowledge, European Union, Romania, European financial aid, human resources, university, performance, consultancy. To solve the puzzle, we must find a way to combine them, which can be achieved by using tools - in our case identified as the research methods described above. Thus, we can begin to solve this puzzle gradually by adding piece after piece. Bringing these themes together represents the research aim, namely providing insights and ways to address these heterogeneous elements.

performance knowledge Qualitative Quantitat cientific methods Management practices in documentation European projects for human management resources development in Romanian universities human nonrefundable resources european funds

Figure 1. Conceptual framework

Source: Own contribution

Starting from the progressive way proposed to solve this puzzle, we have structured this thesis in three parts according with the research methods used and each of these into one to three chapters, giving readers the opportunity to discover how we gradually matched the pieces.

The first part presents a literature review, obtained as a result of scientific documentation. It covers three chapters, each of which deals with different topics, but also it reveals a combination between them, for a more comprehensive coverage of the research topic.

- Chapter 1 entitled *Transition towards a new economy, the one based on knowledge* emphasizes the importance of knowledge nowadays, given that we are in a transition to an economy that considers knowledge as the basic resource that can provide a competitive advantage. This chapter is presenting different existing approaches about the concept of knowledge, defines the main types of knowledge widely used in scientific literature, reveal the pillars of the knowledge based economy: an economic and institutional regime, an educated human resource, a proper innovation system and infrastructure for information and communication technology. In addition, there is a review of the extent to which EU Member States manage to reach a knowledge based economy, using the index created by the World Bank, Knowledge Economy Index. Not least, it makes a connection between EU Cohesion Policy and the knowledge based economy, highlighting the importance of structural instruments in order to achieve this new type of economy.
- Chapter 2 *Project management* a required process in using European structural instruments clarifies the notions of project, program, project management, project management office and shows how the performance of a project is treated in previous research using literature review. At the end, we tried to reveal the importance of using project management practices while using structural and cohesion funds, by presenting particular issues related to the topic, followed by presenting six stages of a European project lifecycle and ways to classify a project as successful. Regarding this, three indicators are described, based on financial elements related to this type of projects (financial allocation, expenses requested for reimbursement, reimbursed expenses).
- The first part, meant to presents the paper theoretical framework, ends with Chapter 3. Knowledge management a necessary practice in today's economy.
 This is presenting various expert approaches regarding the definition of knowledge management, then it describes the processes associated with this practice, a review over the used instruments. Continuing in the same style, in

the end we tried to analyze the topic of *knowledge management project*, with an emphasis on European projects.

The second part of the paper is divided into two chapters and is characterized by the use of qualitative research methods such as case studies and focus group. This section presents the stage of structural funds for human resource development in Romania, by analyzing the contracted projects between 2007 and May 2015.

- Chapter 4, entitled Structural instruments for human resources development in Romania introduces us to the theme of European structural instruments provided to Romania after its integration in European Union in 2007, by illustrating the legislative framework for this type of funding. It then proceeds to emphasize the importance of human resource for development and also it describes the European Social Fund (ESF) and Sectoral Operational Programme for Human Resources Development (SOPHRD). which covers approximately 95% of ESF funding in Romania. It provides a comprehensive diagnostic analysis of the operational program, both in a quantitative and qualitative mode by participating in a focus group whose aim was to identify the beneficiaries' opinions about efficiency, effectiveness and relevance of the projects funded through SOPHRD. The chapter concludes with recommendations to overcome ongoing problems identified by using actions related to knowledge management.
- How Romanian universities used European funds linked to SOPHRD represent the subject treated in Chapter 5, entitled Analysis of European funds for human resources development in Romanian universities. Data used in analysis covers the SOPHRD projects contracted between 2007 and May 2015, being at this moment, the only complete and detailed data on this subject. For starters the role that universities play in achieving a higher level of development is highlighted, then the position held by universities among all beneficiaries of these kind of funds. Following the initial analysis, the chapter presents evidence related to the ability of contracting such funds by Romanian universities, highlighting the power of *Universitaria Consortium* in this regard. This part represents a starting point in identifying the target group for applying the questionnaire.

The last part of the paper covers the empirical study undertaken in this research and completes the first two parts through a detailed analysis of management practices used in universities, from project managers point of view, with emphasis on the importance of project management offices and knowledge management related activities.

Chapter 6 entitled Contributions regarding management practices applicable in Romanian universities in the context of European projects present information related to the questionnaire: how it's made, how it's going to be used, applied, target group characteristics, the response rate, the collection of financial data that will be used. The questionnaire was developed using the online service Google Drive and to SOPHRD project managers from Universitaria Consortium. We managed to receive responses from 34.65% of the selected target group and perform statistical analyzes using IBM SPSS Statistics 21. Moreover, some of the graphs were generated using Microsoft Office Excel application. The chapter includes a description of the statistical methods used: descriptive statistics, bivariate (Paired Samples T test, ANOVA, Spearman coefficient) and multivariate (binary regression). Also, it reveals the questions we want to provide response, the description of the sample and of course results after processing the data obtained.

Using a questionnaire, as a quantitative research, we had the opportunity to identify the perception of project managers on management practices that are used in the targeted institution to ensure an efficient implementation of activities related to the use of European funds. A method used in targeted universities is to create a center whose activities are directed towards management of European funds. Most of the questionnaire's questions tries to identify the relationship between project managers and this office, the importance assigned to this department, its association with a project management office. In addition, we want to determine whether project managers are open to adopt practices related to knowledge management, if in university or within the office tools specific to this practice are initiated, as well as their opinion on the possibility that these instruments can help in achieving a higher degree of project performance.

We consider this chapter important for this research by highlighting some relevant information about how the universities have managed EU funds allocated for human resource development during 2007-2013. The results obtained from statistical processing of data reveals features of offices created in universities to manage EU funds, cooperation between the latter and project managers, illustrating three indicators that may indicate the performance of a project and not least the extent to which knowledge management tools are being used. Through the information provided, we intend to draw attention over the factors that can improve the use of EU funds, to identify directions for future action in this regard and to provide a new perspective on management practices that can positively influence the implementation of projects financed by European funds.

The paper ends with some final conclusions, highlighting also the research limitation, what was my contribution to research field and future research perspectives.

We think that the proposed structure provides easy reading and gives information in a progressive way, highlighting the applicability of project management and knowledge management practices in using European funds in general, and the funds for human resource development in particular. We begin by treating each topic in particular, but then move on crossing them, offering new research perspectives. Using various methods of research underlines the quality of results, when the quantitative research completes the qualitative research. For these reasons we believe that this work is relevant, it managed to capture the usefulness of practices related to project management and knowledge management in European funds, stressing the need to integrate them in the process.

Conclusions

Research topic is relevant in the context of using European funds in order to develop a knowledge-based economy and to reduce disparities between EU Member States. Romania benefit from these funds since 2007, when it became a member of the union. In order to use this kind of financing, EU Member States must follow both a European and national legislative framework and needs to undertake specific projects, on a predetermined format, with specific targets in order to achieve the goals set in development strategies (both at European and national level).

A research on the management practices applied in European projects is important and also necessary to complete the existing knowledge in the field and to identify new ways and actions that can lead to a better implementation of these projects, a better use of structural funds given to our country and not least for achieving a higher absorption rate at national level. The research necessity can be revealed also if we take into consideration the degree in which we managed to absorb European funds during 2007-2013. We were able to received reimbursements from European Commission in amount of 50.37% from total allocation (May 2015). But at the end of 2013 the reimbursement rate was only $26.47\%^2$ and in 2012 only $11.47\%^3$. Among the seven operational programmes, the lower absorption rate was recorded within SOPHRD, position held also in present, in June 2016 the absorption rate reached $54.87\%^4$ from total allocation. A lot of mistakes were made during this first programming period in our country regarding the use of European funds, topic often discussed. This highlights the need for a detailed research over the appropriate management practices that can lead to a better performance in this field.

After a detailed analysis on scientific articles published in international databases and publications regarding this field (project knowledge management) we can establish why it is important to take into consideration knowledge management in projects (in general) and in European projects (in particular). We identified the following advantages that knowledge management can produce by using it in projects environment:

- knowledge and experience accumulated in previous projects can be used in other projects, leading to increased efficiency in work and risk reduction, which reveals the need to stock, transfer and reuse knowledge;
- transferring knowledge within project teams and between different projects can avoid mistakes that have already been experienced by other project teams;
- communication is a prerequisite through which new knowledge can be crated,
 innovative ideas can arise based on interdisciplinary collaboration;

 $^{^2}$ According with the available data published on the website $\underline{\text{www.fonduri-ue.ro}}$, related to date of December 20, 2013

 $^{^3}$ According with the available data published on the website $\underline{www.fonduri-ue.ro}$, related to date of December 31, 2012

 $^{^4}$ According with the available data published on the website $\underline{www.fonduri\text{-}ue.ro}$, related to date of June 30, 2016

- using knowledge management processes is necessary due to teams created for a fixed period of time, with external experts, or we risk losing knowledge, experiences, important beliefs;
- using information and communications technology helps us create, stock, organize, transfer knowledge within projects (we can use databases, communication platforms, intranet, forums to debate different topics, problems that may occurs during the life cycle of a project).

Through this work I want to complete existing research regarding projects funded by structural funds, by rising awareness on the importance that must be given to human resources and their knowledge. Previous research has identified most of the problems that have been encountered in using European funds, methods and recommendations to overcome them were highlighted, ways to increase absorption. I believe that the practice of knowledge management can have an important role in the management of European funds, by sharing expertise, knowledge that has been generated in the consultancy centers within universities, between project teams, by presenting some successful examples, practical ways of overcoming the problems, organizing open meetings between beneficiaries etc.

Based on initiated research and the results obtained, our recommendation for higher education institutions wishing to use structural funds are:

- creating a project management office to coordinate and constantly improve
 project management practices within institution;
- a more intense involvement from office's members during all stages in the life cycle of projects;
- among office activities and duties knowledge management practices, tools must
 be integrated and used, such as those proposed in this paper;
- acknowledge, both at university and personal level, the importance of tacit knowledge in order to use tools to manage it;
- project managers should collaborate more often with external project parties (office members, authorities, other experts), be open for collaboration and accept advices than came from outside of the project;
- when analyzing project success, one should take into account the three indicators proposed in this paper, for an increased efficiency in using EU funds,

- a better budget forecasting, that can be respected during implementation; this will lead to a higher absorption rate;
- writing project in accordance with co-financing capacity or identifying external sources of financing, to ensure the project implementation if delays appear in receiving reimbursements.

This study report may facilitate the absorption of European funds, may give confidence to beneficiaries by stressing the fact that this difficult exercise for using structural funds can be covered by practicing a qualitative project management and a continuous communication and collaboration, by using knowledge management processes.

All the results of this research can be successfully used in the next programming period 2014-2020, providing a support from the moment when the idea is generated till implementing the project and achieving the objectives. Also, management practices identified and recommended for universities when dealing with European projects can be applicable in other fields, areas or organizations.

This paper wants to be a support for all the parties involved in the process of using European funds for human resources development by offering some new perspectives of action, proposing ways to transfer, stock knowledge generated in writing, implementing, evaluating, monitor projects financed through this kind of financial aid. Moreover, we focus on the importance of an office/department within the institutions managing multiple projects, associated with a consultancy center, a project management office, concentrating, applying and sharing the knowledge related to this matter. Individuals interested in participating in this process should be aware of the help that can come from experts, the need for confidence and openness to collaboration and accepting advices from outside the team. Thus, these offices could positively influence the efficiency of using these funds.

Personal contributions

A main contribution can be considered the research topic itself and the perspective of analysis. From the literature review we didn't identify any other paper regarding the impact of internal departments for project coordination within educational environment. Moreover, their approach as project management offices and their classification as knowledge-intensive represents my own research initiatives.

I think there are a lot of research aimed at identifying the problems encountered and proposing solutions to overcome them when it comes to using European funds, but only few ones demonstrate a significant effect of practices or influences that help to eliminate or reduce them. The research is based on concrete facts and data even if the accent is pun on higher education institutions, the results may be relevant also to other type of beneficiary. For this reason, this paper is different from existing research, revealing new ways to identify useful management practices in European projects.

Also, by presenting three new indicators that can be used when talking about project performance we highlight another important contribution. Their value indicates whether a deficient management of projects or over the adequate funding was used. We highlight that it is not sufficient to take into account only the timing, budget and project achievement in the process of identifying successful projects. In addition, based on the indicators used to calculate success rate by Management Authority of SOPHRD, we can say that the indicators proposed in this paper are more relevant and useful in evaluating the efficiency of using this kind of funding locally, regionally and nationally.

The results obtained can represent a starting point in improving the use of European funds both at university and national level. We succeeded to demonstrate the usefulness of project management offices in managing European projects. Moreover, we estimated a potential relationship between a knowledge intensive project management office and reaching a desired level of proposed indicators.

Regarding knowledge management practices, we found out that project managers are open to knowledge transfer, but there are only few associated tools used in universities, even if these tools are perceived as being a factor that can lead to increasing project performance.

We tried to complete previous research, reveling practices that can be applicable in organizations and with a capacity to lead to a better use of European funds: create project management offices and integrate knowledge management processes. The results presented may draw the attention of the responsible authorities, potential beneficiaries of this funding regarding the initiatives that may be introduced in the future and their importance in the process of accessing European funds for the next period. All recommendations and conclusions stated are based on a combination of complex research methods (qualitative and quantitative) that reinforce their credibility.

Given the personal concern for research, results dissemination and receiving feedback from a dedicated public during doctoral studies, I wrote a number of six articles in the research areas. Also, I've participated in a series of international conferences held both in Romania or abroad (Poland). By having these articles accepted for conference participation and later publication, their relevance and originality was confirmed. Thus, in this paper, parts of articles published as first author over the years can be found.

Research limitation

This paper has certain limitation, which can reduce the relevance of results, but may be addressed in future research. Among them we mention the following:

- using a questionnaire as a quantitative research instrument, due to the subjectivity that characterized the responses, the results obtained are presenting only the project managers perspective, without taking into consideration other participants in the process of using European funds, like project team members, offices members, target group, management authorities;
- we managed to received only a small number of responses to the questionnaire, which outlines a small research sample. The target group was characterized by a reluctance to complete the questionnaire, which led to the need to extend the period allocated for data collection (over three months). We finally managed to reach a satisfactory response rate of 36.22%, enabling us to identify particular aspects encountered in analyzed universities. We note that the target group was chosen precisely to remove this limit, frequently encountered in using this method. I believed that people from educational environment are more open when it comes to participation to research, realizing the importance of sample size for an empirical research, in order to obtain representative results.
- the case study focused on the use of SOPHRD funds in Romania and with emphasis on higher education refers only to projects that have reached the contracting stage. This happened due to a lack of data covering projects submitted, rejected, approved by types of beneficiaries or financial data related. There is a database provided by the Romanian Ministry of European Funds, named SMIS, which permits searching a project only after SMIS code and does not allow exporting data. In addition, it does not provide a final situation of the projects, but financial data on each request for reimbursement submitted. This

- makes it difficult to analyze the financial data related to projects, which can reveal important results for research;
- research results does not present an overview on the final use of funds allocated for human resources development during 2007-2013, because when initiating the analysis, there were requests for reimbursement unresolved, complaints submitted, projects in implementation (financing contracts were signed after May 2015, which is the last reference in this research) or the financial database has not been updated yet. Thus, there is a need for future studies after completing the whole process of using the allocated funds for 2007-2013 in Romania.

Future research perspectives

This study can be considered a starting point for initiating new thorough research over knowledge management practices in universities, to find out if there is an appropriate culture for using this kind of practices in their activity in general, not only in the ones related to European projects.

Another initiative could include in the analysis other stakeholders involved in the process, such as the opinion of team members on project management practices used by the manager, the opinions of the target group on cooperation, communication and activities during implementation. These could lead to highlighting examples of good practice or to identifying problems linked to the way projects were managed. In this research we focused more on management practices at institutional level, through the creation of an office to coordinate European projects and mostly on the link between office and project managers. Moreover we tried to identify the contribution which this department might have in making this process more efficient. But in the end, the managers are the ones that takes the decisions, even if they receive advices from outside, it's their choice to consider them or not. Thus, there is a possibility to reach a lower absorption rate due to a bad management, even if there is a functional project management office, which highlights the need for a more intensive research on this matter. Also, as noted in the paper, there are a number of issues related to management of European funds at national level regarding allocation, law, insufficient or unprepared human resources, which affects the entire process of using this kind of funding. It is difficult to identify internal project causes that lead to a less efficient use of EU funds

because we cannot identify the extent to which the external aspects can negatively influence its implementation.

Moreover, I think that it would be very relevant to make comparisons between EU Member States, to identify management practices that have been used and that led to a higher absorption rate. Knowledge transfer between Member States could lead to an improvement of the whole process of using European funds.

Also, it would be interesting to perform a comparative analysis between a university in our country (for instance Babes-Bolyai University) and one from abroad (perhaps with a partner university). The analysis will highlight the situation of the SOPHRD projects in both universities, the problems that occurred, the factors that led to project rejection and what led to late payments, ways to combat problems encountered and in addition we can reveal best practices in managing EU projects. An analysis can be directed towards knowledge management practices used by both universities, revealing similarities and differences, factors leading to success/ failure of a project, how information is created, stored, transferred and used. Thus will gives us the chance to establish good practices, ways to improve project management through focusing on knowledge generated on this topic of interest.

The comparison between this research and a part of a puzzle underlines the multiple possibilities to extend it, by including new pieces, which can be either a new topic that may be associated or different research methods that can lead to other relevant results.

Selective bibliography

- Adam, A., (2014), Contribuții privind transferul cunoașterii în managementul proiectelor de implementare a sistemelor ERP, Teză de doctorat, Universitatea Politehnică Timișoara, Editura Politehnica Timișoara
- Alekseev, A., (2010), Knowledge Management in Project-Based Organisations: The Success Criteria and Best Practises, Master of Science Thesis in the Master's Programme International Project Management, Chalmers University Of Technology, Northumbria University, Göteborg, Sweden 2010
- Ajmal, M., Kekale, T., Takala, J., (2009), Cultural impacts on knowledge management and learning in project-based firms, The journal of information and knowledge management systems, Vol. 39 No. 4, p. 339-352
- Ajmal, M., (2009), Managing Knowledge in Project-based Organizations A cultural perspective, Teză de doctorat, Acta Wasaensia No 214, Industrial Management 16, Universitas Wasaensis, Finlanda

- Androniceanu, A., Abaluta, O.M., Curteanu, D., Popescu, R.I., (2006), Managementul proiectelor cu finanțare externă Metodologii de elaborare, Editura Universitară, București
- Aubry, M., Hobbs, B., Thuillier, D., (2009), The contribution of the project management office to organisational performance, International Journal of Managing Projects in Business Vol. 2 No. 1, p. 141-148
- Becker, G., (1997), Capitalul uman o analiză teoretică și empirică cu referire specială la educație, Editura ALL, București
- Bellinger, G., Durval, C., Mills, A., (2004), Data, Information, Knowledge, and Wisdom, disponibil online http://www.systems-thinking.org/dikw/dikw.htm
- Benhabib, J., Spielger, M., (1992), The role of human capital in economic development: evidence from aggregate cross-countru and regional U.S.Data, C.V.Starr center for applied economics, New York University, Economic research reports
- Brătescu P.E., (2011), Management de proiect fundamente științifice pentru instituțiile de învățământ, Ed. Tipoalex, Alexandria
- Brătianu, C., (2011), Barriers in innovation and knowledge management in the romanian emergent economy, Management & Marketing, Challenges for the Knowledge Society, Vol. 6, No. 4, p. 515-528
- **Bud, A.M.**, (2014), The success rate of projects funded by structural and cohesion funds within Babes-Bolyai University, Review of Economic Studies and Research Virgil Madgearu, Editura Alma Mater, Cluj Napoca, An VII, nr. 2, p. 25-40
- **Bud, A.M,** (2015), Using EU funds in Central and Eastern Europe Romania's position, The Wroclaw School of Banking Research Journal, Vol.15, No.4, p.549-558
- **Bud, A.M.**, Nistor, R., (2014), Managing knowledge related to structural and cohesion funds by universities, Managerial Challenges of the contemporary society, Editura Risoprint, Vol.7, Nr. 1, p. 39-45
- **Bud, A.M.**, Nistor, R., (2015), A qualitative evaluation on POSDRU 2007-2013 in Romania –focus group study, The Annals of the University of Oradea Economic Sciences TOM XXIV, 1st Issue July 2015, p. 1044-1053
- **Bud, A.M.**, Nistor, R., (2015), Romania's progress in using EU funds for human resources development, Managerial Challenges of the contemporary society, Vol.8, Nr. 2, p. 11-15
- **Bud, A.M.**, Afrăsinei-Zevoianu, C., Stegerean, R., (2015), The capacity of Romanian universities to contract EU funds for human resources development, Proceedings of the 9th International Management Conference *Management and Innovation For Competitive Advantage*, November 5th-6th, Bucharest, Romania, p.910-917
- Buys, P., Plessis, J., Bosman, P, (2010), The impact of human capital development on economic growth, Studia Universitatis Babes-Bolyai, Oeconomica, Vol. 55, 1, p. 21-40
- Chakravorty, S.K., (2012), Quality of human capital and economic development, Productivity, Vol.52, nr. 4, January-March, p.189-194

- Chen, D., Dahlman, C., (2005), The Knowledge Economy, the KAM Methodology and World Bank Operations, The World Bank, Washington DC, disponibil online http://siteresources.worldbank.org/KFDLP/Resources/KAM_Paper_WP.pdf
- Cram, J., Sayers, R., (2001), Creating and Managing Context: The Use of Knowledge Management Principles to Deliver Virtual Information Services to Schools, ASLA XVII Conference, Twin Waters Resort, Sunshine Coast, Queensland, disponibil online http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.203.4628&rep=rep1&type=pdf
- Dalcher, D. (2014), Rethinking Success in Software Projects: Looking Beyond the Failure Factors, pp.27-49, capitol în Ruhe, G., Wohlin, C., Software Project Management in a Changing World, disponibil online http://link.springer.com/book/10.1007/978-3-642-55035-5
- Davenport, T.H; De Long, D.W., Beers, M.C., (1998), Successful Knowledge Management Projects, Sloan Management Review; 39, 2, p. 43-57
- Davenport, T.H., Prusak L., (2000), Working Knowledge: How Organizations Manage What They Know, 2000, Harvard Business School Press, disponibil online http://ubiquity.acm.org/article.cfm?id=348775
- Desouza, K.C., Evaristo, J.R., (2006), Project management offices: A case of knowledge-based archetypes, International Journal of Information Management 26, p.414–423
- Drucker, P., (c1968, 1969), The age of discontinuity guidelines to our changing society, Harper & Row Publishers, New York
- Florescu, D., (2012), Managementul proiectelor cu finanțare europeană, ed. C.C.Beck, Bucuresti
- Ford, D.P., Chan, Y.E., (2003), Knowledge sharing in a multi-cultural setting: a case study, Knowledge Management Research & Practice, 1, p.11–27, doi:10.1057/palgrave.kmrp.8499999
- Ford, D.P., Staples, S., (2010), Are full and partial knowledge sharing the same?, Journal of Knowledge Management, Vol. 14, No.3, p. 394-409
- Geng, Q., Townley, C., Huang, K., Zhang, J., (2005), Comparative Knowledge Management: A Pilot Study of Chinese and American Universities, Journal of the American Society for Information Science and Technology, 56-10, p.1031-1044
- Grant, RM., (1996), Toward a knowledge-based theory of the firm, Strategic Management Journal, Vol. 17, p.109-122
- Handzic, M., Durmic, N., (2015), Knowledge Management, Intellectual Capital and Project Management: Connecting the Dots, The Electronic Journal of Knowledge Management Volume 13 Issue 1 (p. 51-61), disponibil online www.ejkm.com
- Hanisch, B., Lindner, F., Mueller, A, Wald, A., (2009), Knowledge management in project environments, Journal Of Knowledge Management, VOL. 13 NO. 4 p.148-160
- Hapenciuca, C.V., Moroşan, A.A., Arionesei, G., (2013) Absorption of Structural Funds International Comparisons and Correlations, Procedia Economics and Finance, 6, p. 259 – 272

- Hill, G., (2004), Evolving the Project Management Office: A Competency Continuum, Information Systems Management 21(4), p.45-51
- Hislop, D., (2005), Knowledge management in organizations-a critical introduction, Oxford University Press, NewYork
- Hobbs, B., Aubry, M., (2007), A multi-phase research program investigating project management offices PMOs: The results of phase 1, Project Management Journal; 38, 1, p. 74 86
- Hobbs, B., Aubry, M., Thuillier, D., (2008), The project management office as an organisational innovation, International Journal of Project Management 26, p.547–555
- Holste, S., Fields, D., (2010), Trust and tacit knowledge sharing an duse, Journal of Knowledge Management, Vol. 14., No. 1, p. 129-140
- Ilies, L., Mureșan, I., Muntean, B., (2012), Knowledge management in EU funded projects, Revista Economică, Supliment Vol.2, p. 152-159
- Kluge, J., Stein, W., Licht, T., (2001), Knowledge unplugged The McKinsey&Company global surbey on knowledge management, Palgrave, New York
- Kranjac, M., Henny, C., Sikimić, U., (2011), European funds as fact of sustainable development in Central Eastern European countries, FactaUniversitatisSeries: Economics and Organization, Vol. 8, No 3, p. 301 312
- Kwan, YH., Dai, C.X.Y, (2000), Assessing the value of project management offices (PMO), PMI Research Conference 2000, disponibil online http://home.gwu.edu/~kwak/PMO_Value.pdf sau http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.472.8508&rep=rep1&type=pdf
- Lech, P. (2011), Knowledge Transfer Procedures From Consultants to Users in ERP Implementations, The Electronic Journal of Knowledge Management, 9(4), p.318-327, disponibil online www.ejkm.com
- Lee, Y., (2006), Researh report The effect of PMO on IT Project Mangement. A summary of the survey results, Hawaii Pacific University
- Liew , A., (2007), Understanding Data, Information, Knowledge And Their Inter-Relationships, Journal of Knowledge Management Practice, Vol. 8, No. 2, disponibil online http://www.tlainc.com/articl134.htm
- Liew, A., (2013), DIKIW: Data, Information, Knowledge, Intelligence, Wisdom and their Interrelationships, Business Management Dynamics, Vol.2, No.10,p.49-62
- Lupșa-Tătaru, D.A., Constantin, S., Neacșu, A., Albu, R.G., Antonoaie, C.D., (2008), Managementul în economia bazată pe cunoaștere, editura ASE, București
- Mueller, J., (2012), Knowledge sharing between project teams and its cultural antecedents, Journal of Knowledge Management, VOl.16, No. 3, p.435-447
- Mueller, J., (2014), A specific knowledge culture: Cultural antecedents for knowledge sharing between project teams, European Management Journal 32, p.190-202, disponibil online http://dx.doi.org/10.1016/j.emj.2013.05.006

- Muller, R., Turner, R. (2007), The Influence of Project Managers on Project Success Criteria and Project Success by Type of Project, European Management Journal, Vol. 25, No. 4, p.298–309
- Mureșan, I., (2012), Impactul proiectelor finanțate de uniunea europeană asupra dezvoltării regionale, Teză de doctorat, Universitatea Babes-Bolyai, Facultatea de Științe Economice și Gestiunea Afacerilor, Cluj Napoca
- Neagu, D., (2007), Conceptele și caracteristicile sistemelor de management al cunoașterii, Capitolul X în Bodea, C.N., Andone, I., Managementul cunoașterii în universitatea modernă, Editura ASE, p. 95-102
- Nestian, A., (2007), Knowledge Management Concepts and Models Applicable in Regional Development, management & marketing, Challenges for the Knowledge Society, 1, disponibil online http://www.managementmarketing.ro/autori.php?var[0]=autori&var[1]=Andrei%20Nestian&var[2]=46
- Newton, R., (2009), The practice and theory of Project Management creating value through change, Palgrave Macmillan, New York
- Nickols, F. W., (2000), The knowledge in knowledge management, In Cortada, J.W. & Woods, J.A. (Eds) The knowledge management yearbook 2000-2001 (p. 12-21). Boston, MA: Butterworth-Heinemann, disponibil online http://www.nickols.us/Knowledge_in_KM.htm
- Nicolescu O., Nicolescu L., (2005), Economia, firma și managementul bazate pe cunoștințe, Editura Economică, București
- Nistor, R.L., Munteanu, V.P., (2013), Managementul proiectelor europene, Eikon, Cluj Napoca, p. 18
- Nonaka, I., (1994), A Dynamic Theory of Organizational Knowledge Creation, Organization Science, 5(1), p.14-37
- Nonaka, I., Toyama, R., (2003), The knowledge creating theory revisited: knowledge creation as a synthesizing process, Knowledge Management Research & practice, 1, p.2-10
- Nor, S.A.K, Mohamed, J.M.R, Noeshidah, M., (2012), Measuring employee readiness for knowledge management using intention to be involved with KM SECI processes, Business Process Management Journal, 18(5), p.777-791
- Omotayo, F.O., (2015), Knowledge Management as an important tool in Organisational Management: A Review of Literature, Library Philosophy and Practice (e-journal), Paper 1238, disponibil online http://digitalcommons.unl.edu/libphilprac/1238
- Pande, A., (2012), The value of project management office, International Journal of management research and review, Vol.2, Issue 3, Art no.5, p. 426-429
- Park, J.G., Lee, J., (2014), Knowledge sharing in information systems development projects: Explicating the role of dependence and trust, International Journal of Project Management 32, p.153-165
- Păuțu, S., (2013), Implementarea proiectelor cu finanțare nerambursabilă, sursă de schimbări în organizațiile din România, Teză de doctorat, Universitatea de Vest din Timișoara, Facultatea de Economie și Administrare a Afacerilor, Timișoara

- Pemsel, S., Wiewiora, A., (2013), Project management office a knowledge broker in project-based organisations, International Journal of Project Management 31, p. 31-42
- Polyaninova, T. (2011) Knowledge Management in a Project Environment: Organisational CT and Project Influences. Vine, vol:41, iss:3, 2011
- Popescu, A.I., Popescu, L., (2011), The Contribution Of The European Structural Funds To The Development Of Human Resources In Romania From A Regional Perspective, 18th International Economic Conference – IECS Proceedings
- Reychav, I., Weisberg, J., (2010), Bridging intention and behavior of knowledge sharing, Journal of Knowledge Management, Vol. 14 Iss: 2, p.285 300
- Rolstadas, A., Tommelein, I., Per, M., Ballard, S.G. (2014), Understanding project success through analysis of project management approach, International Journal of Managing Projects in Business, Vol. 7/4 p. 638 660
- Roman, T., (2005), Sistemul de management al cunoștințelor creare, implementare, auditare, Management intercultural, Vol. VII, Nr. 13, p. 25-30
- Rosenberg, C.B., Sierhej, R., (2007), Interpreting EU Funds Data for Macroeconomic Analysis in the New Member States, IMF Working paper
- Rowley, J., (2007), The wisdom hierarchy:representations of the DIKW hierarchy, Journal of Information Science, 33(2), p.163-180
- Segundo, R.S., (2002), A New Concept of Knowledge, Online Information Review, 26, 4, p. 239-245
- Siakas, V., Georgiadou, E., Balstrup, B., (2010), Cultural impacts on knowledge sharing: empirical data from EU project collaboration, The journal of information and knowledge management systems, Vol. 40 No. 3/4, p.376-389
- Skyrme, D, (2003), Knowledge Management: making sense of an oxymoron, disponibil online http://www.skyrme.com/insights/22km.htm
- Sokhanvar, S., Trigunarsyah, B., Yarlagadda, P. K.D.V., (2011) The role of knowledge in the project management office, In 25th International Project Management Association (IPMA) Conference, 9-13 October 2011, Brisbane Convention and Exhibition Centre, Brisbane, QLD
- Sokhanvar, S., Matthews, J., Yarlagadda, P.,(2014), Importance of Knowledge Management Processes in a Project-based organization: a Case Study of Research Enterprise, Procedia Engineering 97, 1825 1830, 12th Global Congress On Manufacturing And Management, GCMM
- Sorici, I., Dumitrașcu, A.E., Ciobanu, V., (2010), Managementul proiectelor și dezvoltarea durabilă, Editura Universității Transilvania, Brasov
- Stoenescu, C., (2011), O perspectivă asupra managementului cunoașterii, Editura Universității din București, București
- Strozek, P., (2014), A Spatial Analysis Of The Knowledge Based Economy In Poland, Comparative Economic Research, Volume 17, Number 4
- Suciu, M.C., (2002), Economie Partea I, Noua economie și societatea cunoașterii, Ed. ASE, București

- Suciu, M.C., (2004), Economie Partea II. Noua economie și societatea cunoașterii, Editura ASE, București
- Sveiby, K.E., (1996. Revizuit 1 martie 1998, 3 iunie 1998, martie 1999, Aprilie 2000, Aprilie 2001), What is Knowledge Management?, disponibil online http://www.sveiby.com/articles/KnowledgeManagement.html
- Șerban, O., (2014), Managementul cunoasterii Factor determinant in accelerarea procesului de absorbție a fondurilor europene, Bucuresti, Editura Economica
- Trută, A., (2009), Perspectives of human factor development in a knowledge-based economy, Proceedings of the International Conference "Challenges of Contemporary Knowledge-Based Economy" second edition, Editura Aeternitas, Alba Iulia, p. 608-610
- Tasic, V., (2014), Project Management Office typology and benefits, Informatyka Ekonomiczna Business Informatics, 1(31), p. 173 -182
- Turner, J.R., Simister, S.J., (2004), Manualul Gower de management de proiect, Codecs, Bucuresti
- Wijnhoven, F., (2006), Knowledge management: more than a buzzword, Chapter 1 in Jetter, A., Knowledge integration: the practice of knowledge management in small and medium enterprises, Heidelberg, New York, Physica-Verlag, p. 7-8
- Worthy, T. (2012), Knowledge Sharing Among a Community of Project Managers: A Descriptive Case Study Examining the Relationship Between Social Structures and Knowledge Sharing Among Project Managers in a Global Engineering Firm, Teză de doctorat, The Faculty of The Graduate School of Education and Human Development, George Washington University
- Wrona, K., (2014), Structural funds and the knowledge based economy, Teză de doctorat, Aston University, Birmingham
- Young, T.L., (2006), Successful project management- 2nd Edition, Kogan page, London and Philadelphia
- Zandhuis, A., Stellingwerf, R., (2013), ISO 21500 Guidance on project management A pocket guide, Van Haren Publishing
- Zeleny, M., (1987), Management support systems: towards integrated knowledge management, Human Systems Management 7(1), p. 59–70

Other sources

- AM POSDRU, (2011), Raport Final al Raportului de Evaluare Intermediară a Programului Operațional Sectorial Dezvoltarea Resurselor Umane
- Commission of the European Communitties, (2005), Communication to the spring european council, Working together for growth and jobs A new start for the Lisbon Strategy, Communication from President Barroso in agreement with Vice-President Verheugen, Brussels, COM(2005) 24 final
- Consiliul Uniunii Europene, (2006), REGULAMENTUL nr. 1083/2006 AL CONSILIULUI din 11 iulie 2006, disponibil online http://www.fonduri-ue.ro/res/filepicker_users/cd25a597fd-

- 62/Legislatie/europeana/3 Regulamente Europene (RO)/5 Regulament 1083 2006.pdf
- Consiliul Uniunii Europene, (2006), Council Decision of 6 Octomber 2006 ob Community strategic guidelines on cohesion (2006/702/EC), Official Journal of the European Union
- Consiliul Uniunii Europene, (2013), Parlamentul European, Regulamentul (UE) nr. 1303/2013 al Parlamentului European și al Consiliului
- European Commission, (2003), The role of the universities in the Europe of knowledge, COM(2003), 58
- European Commission, (2004), Project Cycle Management Guidelines, disponibil online la https://ec.europa.eu/europeaid/sites/devco/files/methodology-aid-delivery-methods-project-cycle-management-200403 en 2.pdf
- European Commission, (2005), Mobilising the brain power of Europe: enabling universities to make their full contribution to the Lisbon Strategy, COM(2005), 152
- European Commission, (2008), Growing regions, Growing Europe Fifth progress report on economic and social cohesion
- European Commission, (2010), Document de evaluare a strategiei de la Lisabona, Bruxelles
- European Commission, (2010), Strategia Europa 2020, disponibil online http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:RO:PDF
- European Communities, (2007), Cohesion Policy 2007-2013 Commentaries and official texts, disponibil online http://ec.europa.eu/regional_policy/ro/funding/cohesion-fund/
- European Communities, (2007), Cohesion Policy 2007-2013, National Strategic Reference Frameworks
- Eurostat, (2014), Eurostat regional yearbook 2014, Statistical Book, disponibil online http://ec.europa.eu/regional_policy/en/funding/available-budget/
- IBM Business Consulting Services, (2004), Business Knowledge Management: A study on market prospects, business needs and technological trends Final report, IBM United Kingdom Limited 140
- Guvernul României, (2005), Planul Național De Dezvoltare 2007-2013, 2005, disponibil online http://www.fonduri-ue.ro/res/filepicker_users/cd25a597fd-62/Doc_prog/PND_2007_2013/1_PND_2007_2013(Ro.).pdf
- Guvernul României, (2005), Legea cadru de organizare si funcționare Legea nr. 246/2005 pentru aprobarea Ordonantei Guvernului nr. 26/2000 cu privire la asociații și fundații
- Guvernul României, (2007), Cadrul Național Strategic de Referință 2007-2013, disponibil online varianta engleză http://www.fonduri-ue.ro/res/filepicker_users/cd25a597fd-62/Doc_prog/CSNR/3_Rezumat_CSNR(ro.).pdf

- Guvernul României,(2013), Documentul Cadru de Implementare POSDRU 2007-2013, Versiunea 6, disponibil online http://www.fonduri-ue.ro/res/filepicker_users/cd25a597fd-62/Doc_prog/dci/3_DCI_POSDRU/DCI_POSDRU_2013.pdf
- Guvernul României, (2014), Acordul de parteneriat 2014-2020 cu România, aprobat de Comisia Europeană în august 2014, disponibil online www.fonduri-eu.ro (rezumat în limba română disponibil online http://www.fonduri-ue.ro/res/filepicker_users/cd25a597fd-62/Doc_prog/CSNR/3_Rezumat_CSNR(ro.).pdf)
- OECD, (1996), The Knowledge based economy, Paris, General distribution OCDE/GD(96)102 , disponibil online http://www.oecd.org/sti/scitech/1913021.pdf
- Project Management Institute, (2008), PMBOK Guide Forth Edition, 2008, pag.5
- Project Management Institute, (2012), The project management office, White paper, disponibil online https://www.pmi.org/Business-Solutions/~/media/PDF/Business-Solutions/Value-of-PMO-White-Paper-FINAL.ashx PMI 2012
- Project Management Institute, (2015), Pulse of the Profession: Capturing the Value of Project Management through Knowedge Transfer
- World Bank Institute WBI, (2007), Building Knowledge Economies, WBI Development Studies, Washington, D.C.
- World Bank Institute WBI, Measuring Knowledge in the world's economies, Knowledge for Development Program, disponibil online http://web.worldbank.org/archive/website01030/WEB/IMAGES/KAM_V4.PDF