

## THE IMPACT OF EUROPEAN PROJECTS ON THE DEVELOPMENT OF THE NORTHWEST REGION OF ROMANIA

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### ABSTRACT

*Project management is a relatively new field and still developing. Due to the high frequency of projects in all fields, project management has an important role in ensuring the competitive advantage in the current economic environment.*

*Projects financed by the European Union generate effects on organizations that implement them, on stakeholders and on the regions in which they are implemented. Through these projects the development of the region and the achievement of the European objective - sustainable development is wanted. Our research is focused on the impact of projects financed by the European Union on the development of the Northwest region of Romania.*

**KEYWORDS:** *Project management, regional development, European programmes, impact, impact evaluation*

**JEL CLASSIFICATION:** *M10, O10*

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### 1. INTRODUCTION

Projects represent both a way of survival for organizations, and the means by which competitiveness at micro and macro-economical level can achieve. Project-specific orientation towards achieving the objectives has determined an increased use of projects in all areas, being basically an adaptation of the working manner to the current economic environment characterized by dynamism and complexity.

A particular case of projects are the projects financed by the European Union. They support European policies in achieving their goals, being the means by which the European funds allocated to the member states can be accessed. These projects are common at European level, being different from other projects, and require an adapted management.

Given the large number of investments initiated through projects at European Union level, it is necessary to assess the impact of these projects, in other words to analyze the created effects in order to check if the proposed goals were achieved or not. Even if the costs and efforts involved in project impact evaluations are high, the benefits of this long-term analysis justify the costs and, in addition, can reduce future costs by generating useful knowledge in project management, having positive effects on the development of organizations and regions where projects are implemented. We consider this subject to be of great interest especially now, when Romania is facing a new development period.

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Considering the importance of impact evaluations when dealing with projects, we present in this article:

- the concept of projects, impact and impact evaluation, based on literature review;
- a study on the impact of European projects on the development of the Northwest region.

## **2. BASIC CONCEPTS RELATED TO THE IMPACT OF PROJECTS**

Different approaches regarding the perception of projects exist in the literature (Gareis, 2005, p. 39-41). Projects can be seen as tasks with special characteristics: "A project is a temporary endeavor undertaken to create a unique product, service, or result. The temporary nature of projects indicates a definitive beginning and end" (PMI, 2008, p. 5).

Some authors also define projects as temporary organizations and social systems: A project is a temporary and transient organization surrounded by inherent uncertainty (Turner and Muller, 2003). A project can be defined as "a temporary organization of a project-oriented organization for the performance of a relatively unique, short to medium term, strategically important business process of medium or large complexity" (Gareis, 2005, p. 41).

In the project management literature, often the difference between projects and investments is not made (Gareis et al, 2010). But, according to Gareis (2005), projects can be differentiated from investments, being used for initializing an investment. The beginning of the project and of the investment is the same, but the lifetime of the investment is longer than the one of the project. Achieving the project objectives and the desired outcomes usually causes effects even after the project was implemented.

Impact can be defined as long-term effects, positive and negative, primary and secondary produced by an intervention directly or indirectly, intentionally or unintentionally, according to the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) (Leeuw, Vaessen, 2009, p. ix).

Project impact evaluation studies the effects of an intervention on individuals or communities and whether these effects can be attributed to the intervention, being different than analyzing the results of the project or the implementation process (Asian Development Bank, 2006). In other words, the impact evaluation analyzes the results of the project at a higher level (Asian Development Bank, 2006).

Based on the literature review there can be identified at least four goals in analyzing the impact of projects. These mainly relate to the desire to improve (Ryan, Garrett, 2003):

- The responsibility and credibility of the financier;
- The quality and relevance of the project;
- The structure and implementation process of the project;
- Planning and setting priorities for future projects.

There is an intense debate on the number of evidence required to demonstrate that projects obtain the desired effects. Supporters of a rigorous assessment, consider that it brings benefits as increasing transparency in implementation and avoiding wastage of scarce resources through the implementation of attractive but ineffective and inefficient projects. There are also supporters of indirect impact assessment, considering that too much rigor in the assessment leads to a waste of resources and is difficult to apply it in practice (Clemens, Demombynes, 2010).

Thus, it can be said that the need for rigorous evaluations of the impact of projects and the number of evidence needed to demonstrate that the projects create desired effects are questionable, being cases when experts consider that a comprehensive and rigorous evaluation is not required. A rigorous impact evaluation can enhance the effects of a project but the time and resources used is significant, which is why it is recommended an analysis of the benefits of the assessment and the costs involved to determine whether a rigorous impact evaluation is required.

A rigorous project impact evaluation can be accomplished by various quantitative and/ or qualitative methods. Each impact assessment method has advantages and disadvantages, and the

choice of optimal methods is influenced by the context in which the project implementation takes place, by the data access and the specifics of the project. Most of the impact evaluation guidelines published by recognized international institutions, recommend using both quantitative methods and qualitative ones, to achieve a complex analysis, to obtain different perspectives, to increase the accuracy of the study, and not least to improve the obtained results.

### **3. STUDY ON THE IMPACT OF PROJECTS FINANCED BY THE EUROPEAN UNION**

#### **3.1 Methodology and research objectives**

The impact or effects of projects are often considered only on short term, or not considered at all. We approach this topic as we believe that the improvement of projects' impact on the organizations that implement them and on the region where they are implemented, contributes to the achievement of the European objectives and to creating the dynamic equilibrium specific to sustainable development.

The objectives of the empirical study are:

- Identifying the effects of the studied projects;
- Identifying the methods used for analyzing the effects produced by the implementation of the studied projects.

The research instrument used in this study is a questionnaire focused on the impact of projects financed by the European Union on regional development. From the questionnaire we will analyze in this article two parts:

- The first part aims to analyze the implementation of a project, with emphasis on the generated effects and the methods used for their analysis. Respondents were asked in this section to answer a set of questions with closed answers for a project financed by the European Union for which they are or were part of the management team.
- The second part refers to the identification data.

The target population for our research is members of management teams of projects financed by the European Union. The characteristics of the population are:

- The persons are part of the project management team of a project that received European funding through the European Programmes, in the period 2007 - 2013;
- The projects whose management team is part of the population of interest are implemented in the Northwest region of Romania;
- Projects whose management team is part of the population of interest are implemented by public or private institutions: local authorities, universities, private companies or NGOs.

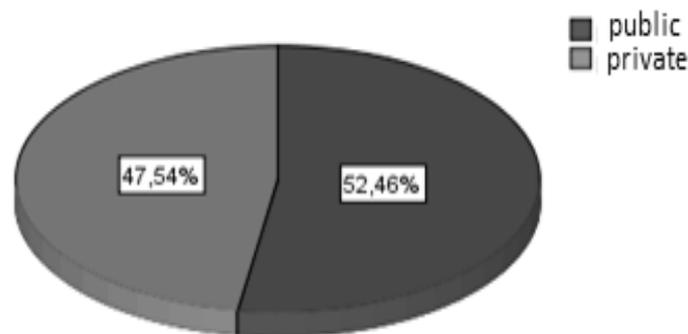
We chose the Northwest region for our study considering the development potential of the region and the generalization possibility of the study. According to the data registered in the Unique System of Information Management (SMIS) about the number of projects financed by the European Union contracted in the period 2007 – 2012, the Northwest region is ranked on an average level compared to the other regions of Romania, having a positive influence on the generalization possibility of the study.

#### **3.2 Structure of the sample**

The questionnaire was sent to a number of 150 persons, members in management teams of EU funded projects in the Northwest region. The number of received responses is 64, representing a response rate of 42.67%. Of these, 61 questionnaires were considered valid, and 3 questionnaires were excluded from the analysis due to incomplete responses. The responses were processed using SPSS.

The respondents work in various types of public or private organizations, such as local public authorities, universities, private companies and NGOs that have implemented projects financed by the European Union. We present below the structure of the sample, depending on the type of the organization that implemented the projects. A percent of 52.46% projects were implemented by

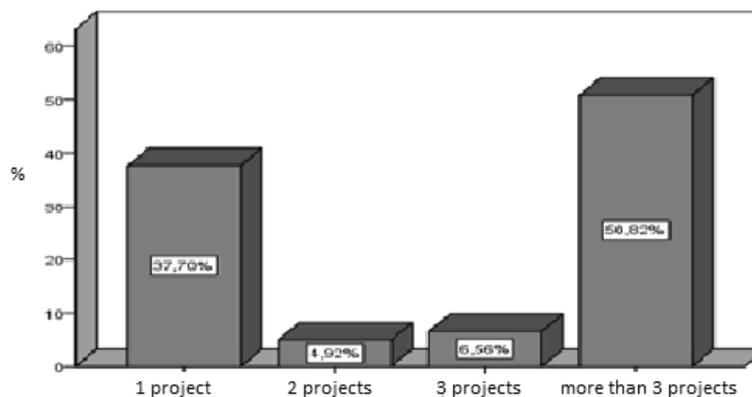
public and 47.54% were implemented by private organizations. The structure of the sample, depending on the type of the organization can be considered balanced.



**Figure 1. The structure of the sample depending on the type of the organization**

*Source: Authors' contribution*

Another important issue that has a direct influence on project management is the experience of the organizations in implementing projects financed by the European Union. From the total number of respondents, 50.82% belong to organizations with experience in implementing EU-funded projects, implementing from 2007 until 2012 more than three projects as beneficiary or partner.

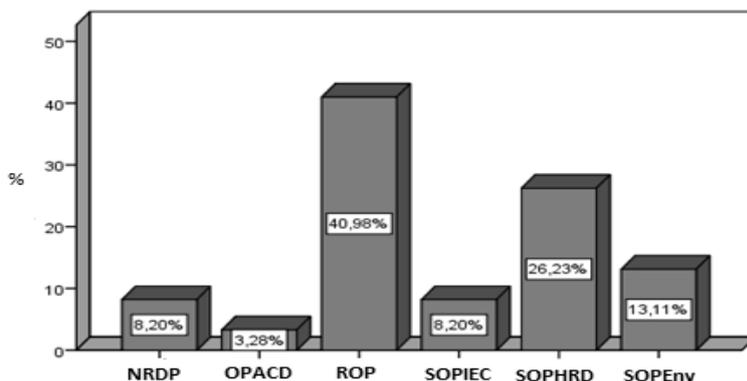


**Figure 2. Number of projects implemented by the organization**

*Source: Authors' contribution*

The main characteristics of the analyzed projects are:

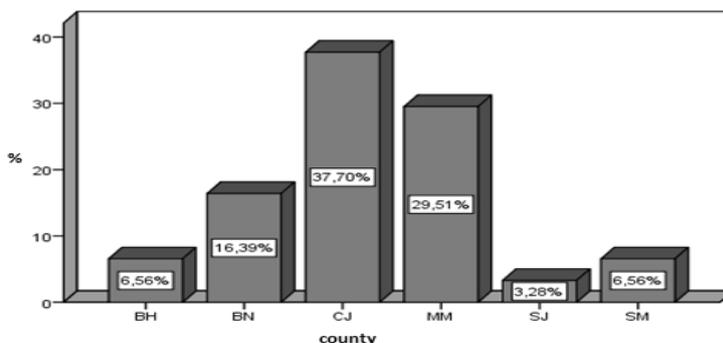
- Analyzed projects are financed through the European programmes: National Rural Development Programme (NRDP), Operational Programme Administrative Capacity Development (OPACD), Regional Operational Programme (ROP), Sectoral Operational Programme Increase of Economic Competitiveness (SOPIEC), Sectoral Operational Programme Human Resources Development (SOPHRD) and Sectoral Operational Programme Environment (SOPEnv). Most of the projects are financed through ROP (40.98%), followed by those financed through SOPHRD (26.23%).



**Figure 3. The analyzed projects depending on the financing program**

*Source: Authors' contribution*

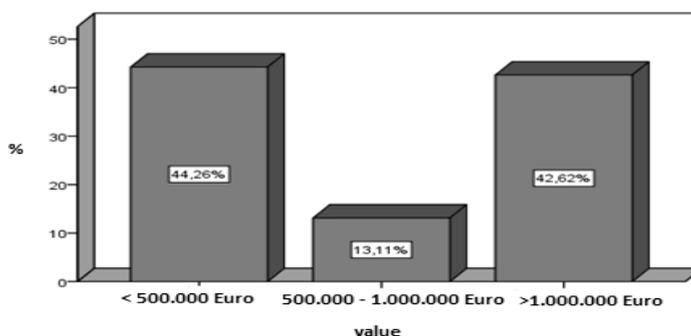
- The analyzed projects are implemented in the Northwest region. Most projects analyzed are implemented in Cluj (37.70%), Maramures (29.51%) and Bistrița - Năsăud (16.39%). There are also analyzed projects implemented in Bihor, Sălaj and Satu Mare.



**Figure 4. The analyzed projects depending on the county**

*Source: Authors' contribution*

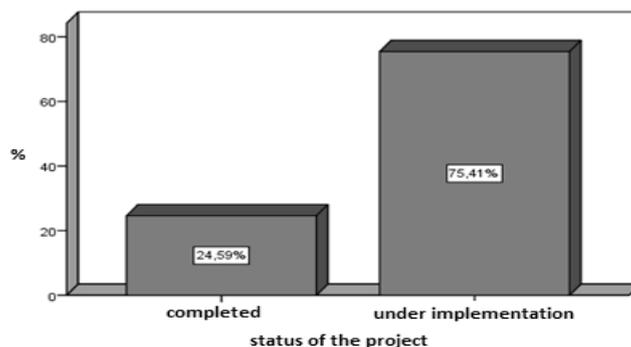
- Most of the analyzed projects (44.26%) have a value of 500,000 Euros. A percentage of 13.11% projects have a value between 500,000 and 1,000,000 Euros and 42.62% have a value over 1,000,000 Euro.



**Figure 5. The values of the analyzed projects**

*Source: Authors' contribution*

- Most of the analyzed projects (75.41%) were being under implementation and 24.59% of the projects were completed at the time of the survey.



**Figure 6. The current status of the projects**

*Source: Authors' contribution*

### 3.3. Data analysis and results interpretation

EU funded projects generate positive economic, social and environmental effects, which can contribute to the sustainable development of the regions where they are implemented. Through these projects, the European development goals should be achieved.

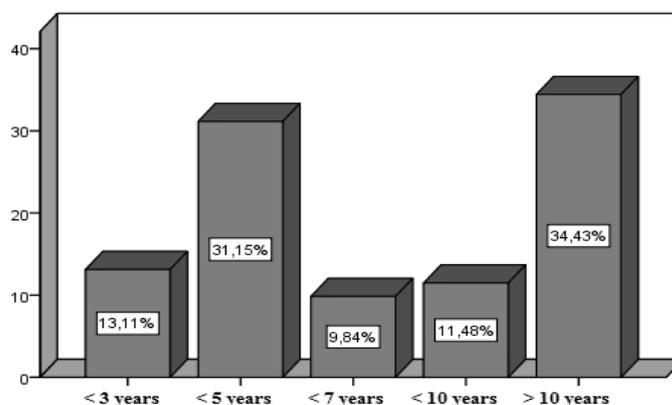
According to the responses received, 90.2% of the analyzed projects generate positive economic effects, 91.8% of the projects generate positive social effects and 52.5% generate positive effects on the environment (Table 1).

**Table 1. Effects of analyzed projects**

Effects of projects	Yes	No
Economic	90.2%	9.8%
Social	91.8%	8.2%
Environmental	52.5%	47.5%

*Source: Authors' contribution*

We also wanted to see the opinion of the respondents regarding the period of time projects continue to generate effects after the implementation. A percentage of 13.11% of the analyzed projects generate effects in the first three years after implementation, 31.15% have effects within the first five years, 9.84% in the first seven years, 11.48% in the first 10 years and 34.43% of the studied projects produce effects more than 10 years after implementation, according to the received responses. Based on these statistics, we emphasize the need to improve the effects created by projects financed by the European Union in order to contribute to the achievement of European development objectives.



**Figure 7. The effects of projects after implementation**

*Source: Authors' contribution*

The number of years projects generates effects after implementation, depends on the specifics of the project. For example, it is likely that a project that develops human resources to generate effects after implementation over a period of time shorter than a project that initiates an investment in infrastructure.

Another link that we consider interesting to be analyzed is the project value and the duration the project generates effects after implementation. To test this link we applied the ANOVA test, where the dependent variable is the number of years that the project generates effects and the independent variable is the value of the project.

**Table 2. Testing the connection: duration of effects - project value**

**ANOVA**

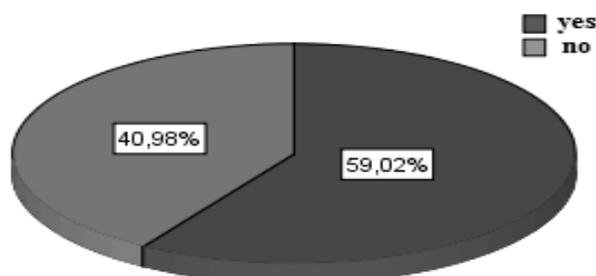
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	58,162	2	29,081	20,920	,000
Within Groups	80,625	58	1,390		
Total	138,787	60			

*Source: Authors' contribution*

Considering that  $Sig = 0.000 < 0.01$ , we can appreciate with a probability of 99% that there is a connection between the value of the project and the period of time during which the project generates effects after implementation.

Impact evaluation involves analyzing the effects generated by a particular project, but the knowledge gained through impact assessment can improve the effects of projects under implementation or of future projects.

In 59.02% of cases the projects effects were analyzed, and in 40.98% of cases they were not analyzed (Figure 8).



**Figure 8. Percentage of projects where effects were analyzed**

*Source: Authors' contribution*

The following table presents the frequency of the received responses depending on the value of the projects.

**Table 3. Frequency analysis of projects effects on the basis of their value**

		Total project value			Total
		less than 500.000 Euro	500.000 – 1.000.000 Euro	over 1.000.000 Euro	
Analyzed effects:	Yes	14	4	18	36
	No	13	4	8	25
<b>Total</b>		<b>27</b>	<b>8</b>	<b>26</b>	<b>61</b>

*Source: Authors' contribution*

Of 61 analyzed projects, in 36 cases the effects were analyzed, of which 14 projects worth up to 500,000 Euros, 4 projects have a value between 500,000 and 1,000,000 Euros and 18 projects worth over 1,000,000 Euros.

We believe that the financing programme corresponding to the project has influence on the decision of analyzing the projects effects. To check whether there is a connection between the programme and the analysis of the effects we applied the ANOVA test on the two variables.

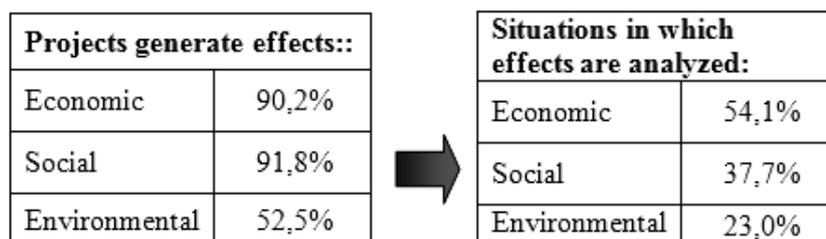
**Table 4. Testing the link effect analysis – OP  
ANOVA**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3,169	5	,634	3,009	,018
Within Groups	11,585	55	,211		
Total	14,754	60			

*Source: Authors' contribution*

From the analysis, we can appreciate with a probability of 95% that there is a connection between the two variables as Sig = 0.018 < 0.05. The European programme through which the project is financed influences the decision of analyzing the effects.

In order to be able to assess the impact of projects on the development of a region, their effects should be studied from the economic, social and environmental point of view.



**Figure 9. Generated effects vs. Analyzed effects**

*Source: Authors' contribution*

Reported to the whole analyzed sample, 90.2% of the respondents claim that the analyzed projects generate economic effects, but these effects are analyzed only in 54.1% of cases. The situation is similar in the case of social effects, where the difference is 54.1% between projects that generate social effects and projects for which the social effects were analyzed. In the case of the environmental effects there is a difference of 29.5%.

Where an analysis of the project effects was made, it was done:

- during the planning of the project in 91.7% of cases;
- during implementation in 33.3% of cases;
- at the end of the project implementation in 11.1% of cases;
- after project implementation in 16.7% of cases.

Cost-benefit analysis is the most commonly used method to study the effects of projects financed by the European Union. To analyze the effects of projects in 69.4% of cases was used the cost-benefit analysis. Other used methods are: cost-effectiveness analysis in 8.3% of the analyzed cases that have made an assessment of the effects, multi-criteria analysis in 19.4% of the cases.

Of the specific methods of impact analysis, qualitative methods of impact evaluation have been used to complement the results of the analysis. A proportion of 23% of respondents claimed that they used qualitative methods of impact evaluation to make a description of the studied elements.

The results obtained from the analysis reported to the number of cases in which an analysis of the effects was made, according to the received responses, were used:

- to support managerial decision-making in 69.4% of cases;
- as a support for the formulation of opinions in 36.1% of cases;
- as a way of informing public opinion in 36.1% of cases;
- to learn and understand certain things about the project in 41.7% of cases;
- to improve the preparation of the project team, to establish best practices for future projects in 36.1% of cases.

Responses received in this case confirm the usefulness of effects analysis in project management.

#### 4. CONCLUSIONS

To bring long-term benefits, projects should take into consideration the context in which they are implemented, should meet the development needs of the organizations that implement them and last but not least, should solve problems.

Long-term effects produced intentionally or unintentionally by projects represent their impact. Although is often spoken about the impact of projects financed by the European Union, the analyses made stop almost every time to a study on the absorption of European funds. Probably most of the analyses are based on the assumption that projects generate the desired effects and a higher level of funds absorption contributes directly to achieving the objectives of European policies, as regional development or sustainable development.

In this article we studied the effects produced by projects in the Northwest region of Romania and the methods used for their assessment. The knowledge gained through impact evaluations are useful primarily to beneficiaries of European funding, but also to the institutions responsible for the implementation of European programmes and projects (intermediate authorities, managing authorities, the Romanian Government and the European Commission).

An increased use of impact evaluations is necessary in order to improve the results of projects and to improve the training of project team members. Also, the establishment of best practices for future projects is necessary in order to obtain better performance in project management.

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