
Why Scientists Do Not Like EU Funding Policy? A Research Review on Performance Evaluation of EU Funding Activities

Submitted 07/11/21, 1st revision 02/12/21, 2nd revision 24/12/21, accepted 22/01/22

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Abstract:

Purpose: The paper identifies and classifies the research studies conducted in the field of performance evaluation in European funding activities.

Design/Methodology/Approach: The article tries to answer some questions, which areas of European funding activities are the focus of research in measuring their effectiveness, what are the most common studied key performance indicators (KPI) in chosen topic and what are their features based on the literature. In order to answer the stated questions literature review methodology was applied. The literature analysis identified the most studied areas of European policies. The classified KPIs are as standardised as possible and quite often they represent a macro perspective, which coincides with the represented areas of the analysed journals presented in the study.

Findings: The study noticed that due to low number of classified studies and limited representation of policies, researchers should place more emphasis on the efficiency of funding activities. Additionally findings presented in the paper suggested a potential logic process of the selection of KPIs to evaluate public projects, programmes or policies.

Practical implications: EU activities are one of the biggest funding initiatives in Europe and probably also in the World, it is important to study how to measure performance of EU projects, programmes, initiatives, politics for better future of all citizens.

Keywords: KPI, EU, accounting, funding, performance, governance, government policy.

JEL classification: M38, M41, M48.

Paper type: Research article.

Conflicts of Interest: The author declares no conflict of interest.

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1. Introduction

EU financing is one of the most important sources of investment in the politics of many European countries. In energy policy for example, the efficiency questions are provided by the researchers in order to find the best models to achieve political targets (Rogić *et al.*, 2019). The terms “European projects”, “European programmes” and “projects funded by European funds” are used alternately in this paper.

In any case, they are projects of all sizes in which European funds are involved. This understanding of European projects, on one hand, allows a broad identification of the perspectives from which management information is viewed, and on the other hand, it's also a limitation of this research, as it does not allow a thorough identification of KPI-related problems in specific European programmes or their comparison. Sound financial management is declared, monitored and controlled. The achievements of projects financed from European funds should be traceable, measurable and quantifiable in each project (Danescu and Cristian, 2012).

There are many institutional decision processes that can influence the choice and application of key performance indicators (KPIs). The process of selecting and using KPI indicators reflects institutional logic. Also, the application of specific KPIs creates and influences institutional processes and work on selected European policies (Rautiainen *et al.*, 2017).

The KPI is an instrument that provides information to the policy makers. Management information is an element of accounting which is to serve as a representation of economic reality and to communicate these representations with the environment. It is therefore difficult to give an unambiguous definition of accounting in a strict form. This is due to the complexity of the issues it covers. Problems in defining accounting can be solved by more detailed analysis. Accounting can be divided into the following categories, among others (Hendrickson and Williams, 2004; Rautiainen *et al.*, 2017):

- financial accounting;
- managerial accounting;
- tax accounting.

Management accounting in business processes focuses on the design and implementation of selected instruments in order to provide information needed to solve management problems (Hinke *et al.*, 2020). This means management accounting provides management information. When implementing projects financed by European funds, project decision-makers and politicians face many decision-making problems. As a management accounting tool, the KPI is a

management information medium with the help of which problems can be solved and decisions can also be made by decision-makers in European projects.

European projects are distinguished from other projects by their form of financing. The characteristic features of European projects include (European Union, 2016; Bachtler and Wren, 2006):

- considerable diversity which is subject to the same rules and regulations imposed by the EU, often highly formalised;
- restricted freedom of planning and execution of such projects (in particular phases of the project cycle, the level of this limitation is different);
- the need for huge financial resources (it is therefore important to develop a planning and implementation system that ensures the efficient and effective use of resources);
- in their implementation involving participants from different backgrounds who often have little experience with the implementation of such projects;
- project activities are aimed at satisfying the needs of the project target groups, the so-called final beneficiaries.

Features mentioned above are particularly politically sensitive at the national and regional level, with a widening gap between net donors and recipients. It is possible to notice that, there has been a significant increase in the quantity of evaluation activity, and moreover, a greater focus on methodology and different approaches to evaluation by practitioners and the scholarly community. Although evaluation in the EU is an under-researched topic.

Even though evaluation at the EU level was introduced earlier than in many member states, and for a considerable number of policies, compared to other stages of the policy cycle, academic analysis of evaluation remains rather scarce (Bachtler and Wren, 2006; Hoerner and Stephenson, 2012). Therefore there is a little theorizing in terms of reflecting upon the factors that influence how evaluation is carried out, and the patterns that can be observed.

In other words, there is an abundance of evaluation reports and documents, from academic and commercial sources, but little abstract thinking about evaluation as a stage in the policy making. In regards to the satisfaction of different stakeholders of EU projects, we expect that the use of performance measurement instruments providing information can vary because of the above characteristics of European projects. Hence it raises a question about methods and key performance indicators (KPI) in order to measure the efficiency of European projects.

2. Literature Review

The initial analysis of EU documentations and programmes allowed us to notice that the objectives of EU programmes have a social dimension, and therefore, to a large extent, the measurement of their achievements should be based on non-financial

measures. Additionally there are three perspectives for the evaluation of the performance:

- macro (national or EU perspective),
- meso (regional) and
- micro (on a scale of specific projects).

EU programmes, projects and policies are subject to control (evaluation) at all stages of functioning, i.e., planning, implementation and measurement of results (Bachtler and Wren, 2006; A guide, 2019; European Council, 2019; Financial Regulation, 2017; Hoerner and Stephenson, 2012; Regulation (EU), 2013). The audit should provide reliable and useful information in order to use the knowledge gained in this way in the decision-making process. It often concerns the process of determining the value or validity of an action, policy or programme (Dogar, 2014).

The aim of this paper was to identify EU project areas and project KPIs raised in scientific research on KPIs in EU projects. It is based on the problem faced by the European Union, namely the evaluation of the effectiveness of policies, programmes and projects. This problem concerns macro, meso, and micro perspectives.

The following research questions were posed in the paper:

1. Which areas of European programmes are the focus of researchers in the case of EU projects effectiveness assessment?
2. Which key performance indicators are included in the research studies about EU projects effectiveness assessment?

An additional question was also asked, which was only partially answered and requires further research:

3. What determines the selection of KPIs for project evaluation based on literature review?

In order to obtain answers to the questions asked, the following stages of literature review were carried out:

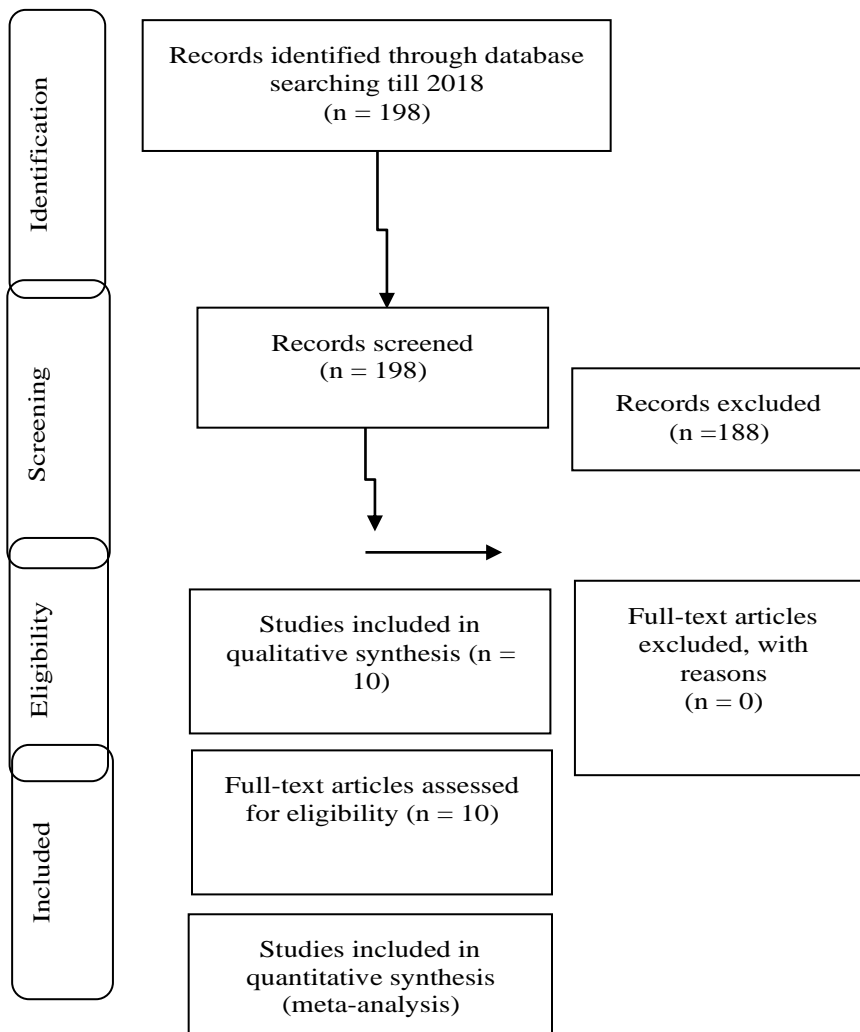
1. An initial review of EU documentation on EU policies and national programmes was carried out. The implementation of this phase has provided an initial understanding of the research area.
2. Review of conducted scientific research. The following scientific bases have been used for this purpose: Web of Science (WoK), Scopus and Springer Link. The review of these databases included:

- searching for published scientific work by keyword combination: KPI (key performance indicators), EU, funding, management accounting;
- search without time range;

- the combinations were changed from the point of view of the research base in order to obtain as many publications related to the subject as possible;
- titles, abstracts and the full content of the articles.

A similar research process was carried out by Špičák (2017) in a research on the impact of information technology on business efficiency also Silva and others (2019). The second stage: studies review process is described in Figure 1.

Figure 1. Elaborated on the basis of Moher et al. (2009)



Source: Own elaboration.

The results of the of the research are presented in tables and diagrams. Table 1 presents the results of the review of selected scientific bases. Research conducted and related to management information concerned information provided in areas

such as sustainable development, use of resources, innovation, competitiveness, use of knowledge, territorial, economic and social cohesion, marketing and processes. The indicators pointed out by the researchers were limited and based mainly on the number of people in the sector, average income per person in the sector, the size of the fishing fleet, the value of production or foreign trade data in the sector and the value of budget support granted. The problems were often addressed only from a macro perspective.

Table 1. Overview of scientific databases

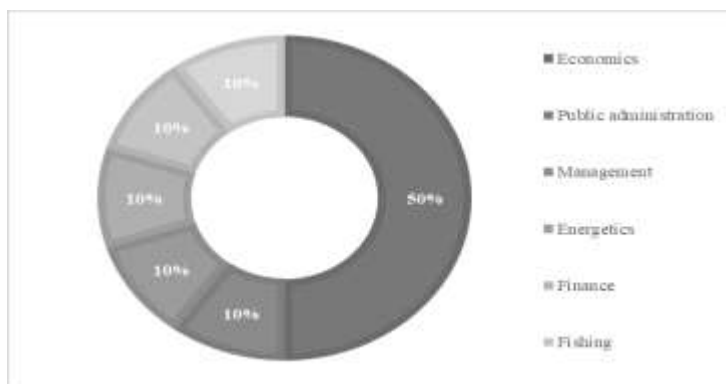
Base	Search words (searching query)	Number of items found	Number of topics related to the researched problem	Area of activity
Scopus	Accounting + eu + funding ((KEY(accounting) AND TITLE-ABS-KEY (eu) AND TITLE-ABS-KEY (funding))	5	0	-
Scopus	Management accounting + eu (TITLE-ABS-KEY("management accounting") AND TITLE-ABS-KEY(eu))	13	0	-
Scopus	KPI + eu + funding; ALL (kpi AND eu AND funding)	22	5	EU Energy (3) Research and development in the EU (2)
Springer link (conference publications and scientific journals in the area of "business and management")	KPI + eu + funding (kpi AND eu AND funding)	23	2	Research and development (2)
Web of science SSCI	Management accounting + eu + funding (ALL FIELDS:(management accounting) AND ALL FIELDS: (eu) AND ALL FIELDS: (funding)	135	3	Maritime policy (1) Cohesion policy (2)

Source: Own elaboration (data timespan till 2018).

The results of the review of the scientific bases ultimately seem quite limited. While the number of results shown after the best (most successful) combination of keywords is not yet very limited (column 3 in Table 1), the overview of topics, abstracts and full articles shows quite little interest in the topic by the researchers. In column 4 of the Table, only 10 publications actually related to the evaluation of the effectiveness of European projects using the key performance measurement (KPI). In these studies, the European project areas were mainly research and development (4 out of 10), cohesion policy, energy, maritime and fisheries policy. The journals in

which the studies were published are mainly of an economic nature, the others are in the fields of finance, management, energy, fisheries and public administration respectively (Figure 2).

Figure 2. Represented journals discipline



Source: Own elaboration.

Looking for an answer to the second question asked in this paper, the author analysed the found texts in terms of key measures of performance evaluation. The paper presents the classification of the measures that were taken or used in the elaborated texts, which European policies they concerned and from which perspective they were discussed. The summary of this analysis are presented in Table 2.

Table 2. KPIs in the literature review

Indicators	Area/policy	Perspective referred to it
GDP	Cohesion Policy, Energy, Fisheries,	macro
Unemployment rates	Cohesion policy, Energy	macro, meso
Research and development expenditure	Cohesion policy, research and development	macro, meso, micro
Number of patents	Cohesion policy, research and development	micro
Number of researchers	research and development	micro
Educational level	Cohesion policy, research and development	macro, meso
Gender	Cohesion policy, research and development	macro, meso, micro
Quantity of waste	Environment, cohesion policy, energy	macro
Poverty rate	Cohesion policy	macro, meso
Life expectancy	Cohesion policy	macro, meso
Volume of catches	Maritime and fisheries policy	macro, meso
Energy efficiency	Energy	macro, meso, micro
Marketing expenditure	Fisheries	macro, meso
Income per capita	Fisheries	macro, meso
Size of the fleet	Fisheries	macro, meso

Share of public funding	Fisheries, Energy, Research and Development	macro, meso, micro
Participation of private financing	Fisheries, Energy, Research and Development	macro, meso, micro

Source: Own calculations.

In the presented analysis (Table 2), the management information focused primarily on the evaluation of the achievements of the key performance indicators (KPIs). These indicators were primarily to provide information on achievements in the following areas: sustainable development, resource use, innovation, competitiveness, knowledge use, economic, territorial and social cohesion.

3. Generalization of the Main Statements

Statement 1: Low demand for performance assessment studies due to high regulation

A clear statement can be drawn from the analysis of the texts of the selected journals (Table 1) that management information was in no way the main focus of the research. Low interest of researchers in the subject of management information in European projects may be due to a high level of regulation in this area and, consequently, low potential for changes and application of research results. Most of the programmes introduced recommendations for performance measures such as the European innovation scoreboard (European Union, 2016) provides a comparative analysis of innovation performance in EU countries. But also more general EU reports, regulations introduced at least some framework for KPIs (A guide, 2019; European Council, 2019; Financial Regulation, 2017; Regulation (EU), 2013).

Statement 2: Most of the studies are based on Research and Development programmes

Second important statement is that KPIs are most frequently addressed in R&D programmes. This may be due to the fact that for the scientists conducting research, this is an area that is intrinsically linked to it, and therefore it is in these projects that most publications have been found in literature review. Furthermore research and development policy in the European Union is quite young in relation to other policies in the history of the EU therefore numbers of classified studies in the area is low. The analysed publications are quite early and were published between 2012 and 2018.

Statement 3: Domination of macro perspective in KPIs

Additionally we can observe domination of macro perspective in performance measurement studies about EU funding. Most of the research was conducted on a macro scale and in these cases it coincides with the fact that the majority of these publications are from social sciences and economic journals. Although some of the indicators in Table 2 appear in the papers in all three perspectives micro, meso and macro. Indicators are quite often standard and used in various sectors or programmes at the macro and meso level. The research on KPIs at the micro and meso level

focused on the evaluation and selection of appropriate indicators for project evaluation at the stage of applying for funding (Bachtler and Wren, 2006; Bonfiglio *et al.*, 2017). This stage can be called EX ANTE evaluation. The research at the macro level focused on the EX POST evaluation of the implementation of EU programmes (Danescu and Cristian, 2012; Mikuš *et al.*, 2018).

Literature review results presented in Table 2 suggested a potential logic process of the selection of KPIs to evaluate European projects, programmes or policies. This process requires the answers to the following questions:

1. Epistemological assumptions: is the result objective? Is the context of socio-economic factors known? (An example: selection of KPIs to evaluate financing of programmes for seniors citizens in Poland. The evaluation institution should know what is the contemporary situation of seniors citizens in Poland in the context of demography, retirement, poverty, family support, public services, NGOs engagement, private services and medical care. So there are couple of KPIs which could be included: average age, pension levels, number of senior citizens living alone, mortality age, etc.).
2. Data selection: how will the data be collected? (In this phase we are identifying institution which are responsible for chosen data collection).
3. Do we deal with a micro, meso or macro level? (Here we should clarify that all KPIs are at the country level).
4. Which stakeholder groups are involved? Is the range wide or narrow? What are the groups? (At this stage stakeholders analysis is expected including also institutions mentioned in the 1st step.)

4. Discussion

The research has confirmed results of initial analysis of EU documentations and fact that KPIs are often non-financial, barely measurable, and can lead to subjectivity in their use. In the analyzed articles, the attempts to create good practices in the application of key performance indicators were observed. In an attempt to develop good practice, the indicators chosen were intended to maximize the expected results of the selected policy, e.g. cohesion policy.

At the macro level, attempts are being made to design indicators for assessing the economic and social cohesion of regions between neighboring countries (Salinas-Fernández *et al.*, 2015). Therefore, the indicators providing information actually boil down to assessing not so much the micro-projects as the effectiveness of the policy at macro level. In energy-related research, the attention of researchers has focused on the selection of KPIs that will promote good practices in the implementation of EU energy policy (Maggiore *et al.*, 2017).

Articles in the R&D sector drew attention to the KPIs both at the level of project selection and national potential assessment. The assessment of an EU Member State was analyzed as an entity applying for EU funds for research and development purposes. The KPIs indicated in the survey (Moagăr-Poladian *et al.*, 2017) are macroeconomic in nature and are generally accepted indicators by the EU for assessing member states' R&D investment expenditures at the national level. Although in classified studies KPI was also analyzed from the micro perspective (Campanella *et al.*, 2014) but this cases were limited to such KPIs as, gender, number of patterns, researchers, energy efficiency, structure of funding.

Character of identified indicators indicates the possibility of their standard and objective (these are quantifiable data) use contrary to what was suggested by Clintworth *et al.* (2018) in case of financing projects by European Investment Bank in maritime sector. Clintworth *et al.* (2018) mentioned that many non-financial measures opened possibility of subjectivity. But in the same work they emphasized that chosen number of criteria (KPIs) will reflect the nature of the project as well as the quality and level of project information. Attention should be given to achieving an appropriate and effective level of KPIs, entailing a manageable level of analytical effort which, in turn, delivers an acceptable level of transparency. Significant differences among indicators used to appear only at the micro level, i.e. at project level, where they need to be specifically tailored to the specific project or policy (e.g., R&D, regional) which was also noted by Clintworth *et al.* (2018) in case of maritime projects evaluations or in case of wellness and recreation evaluation (Shevchenko *et al.*, 2020).

The presented results (Table 1 and Figure 2) show that the chosen problem matter is not often discussed in scientific research. In addition, articles in two major European scientific journals on accounting published by the European Accounting Association were reviewed separately: *European Accounting Review* and *Accounting in Europe*. None of the journals mentioned above included articles on KPI issues in European projects.

5. Conclusion

Literature database analysis provided information that studies in the area of management accounting instruments such as KPIs focuses mainly on R&D programmes. This is understandable because this is the sector in which the authors of these research operate. In the same time it means that EU policies are barely represented in scientific studies on performance evaluation of EU programmes.

The classified KPIs in the literature review are as standardised as possible and quite often they represent a macro perspective, which coincides with the represented areas of the analysed journals. The number of items finally found in the analysis seems to be quite limited. This may be due to the fact that the publications in this area are quite new and it is possible that this area of knowledge has not yet been researched.

Although there were low number of identified studies we should place more emphasis on the efficiency of EU funding programmes. As long as EU programmes are one of the biggest funding initiatives in Europe and probably also in the World, it is alarming that we do not have many studies how to measure performance of EU projects for better future of all EU citizens. As a practical recommendation after the study carried out, it is possible to determine the conditions for the selection of key measures for the evaluation of the achievements of European projects which was presented in previous sections.

We should also acknowledge that efficiency of EU programmes are standardized. Although scientists should discuss actual performance assessment and propose new solutions. Additionally, it is also possible that the literature review procedure used could be modified in terms of keyword selection. The conducted research allowed for preliminary identification of the conducted research paths in the scope of key measures for evaluation of achievements in European projects.

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