

BIBLIOMETRIC ANALYSIS OF THE PERFORMANCE OF THE USE OF EUROPEAN FUNDS AND THEIR IMPACT ON RURAL DEVELOPMENT

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ABSTRACT: *The present paper aims to perform a bibliometric analysis of the literature on European funds. The European Union members contracted the funds to support economic growth and reduce the development gap. Growth, competitiveness, workforce, and improving the environment are the most essential benefits of funding. The literature on the field of fund absorption has been exploited since 1900. The articles that formed the basis of the research were selected from the international Web of Science database. Following a bibliometric analysis of these articles through the VOSviewer program, we made scientific maps to show the field cooperation between the countries and a scientific map of the keywords for publication. The findings show that the most cited journals in the field of European funds are Regional Studies, with 984 citations, followed by Energy Policy. Several 7745 articles were identified in the WOS database between 1900 and 2021, which included 4895 research articles, 1850 proceedings papers, 116 reviews, 199 books, and 594 early access. Of these, 4589 were published between 2010 and 2021, and the rest were published between 1975 and 2021. It is essential to evaluate the quality of such a large number of research papers and to obtain valuable information.*

Keywords: *bibliometric, European Union; European funds, economic growth*

JEL classification: *G41, F42*

1. INTRODUCTION

European funds have been created based on the development of specific areas and the country's member states to reach the highest standards in the world. These funds are non-refundable if they are not reimbursed in the form of a loan, and the money does not have to be

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reimbursed. European funds are those financial instruments created by the European Union for its members to develop certain domains and support countries to achieve specific standards of development, both at economic but also at socio-cultural levels. Non-refundable funds are those financial aid that will be paid without being reimbursed. They are not credited, no interest is charged on their loan, and they do not have to pay any amount of 1 euro.

The Structural Funds are financial instruments eligible for the removal of the European company; the financial framework of the Structural Funds is intended, in particular, for less developed regions, to strengthen economic and social cohesion in the E.U. The Structural Funds contribute to three E.U. economic, social, and policy strategic objectives.

The absorption of European funds helps to develop the whole economy. Many factors may affect the performance of absorption funds, such as the efficiency of public governance, institutional quality, economic development, or socio-cultural factors (Achim & Borlea, 2015). In this regard, funds fraud to obtain illicit gains is widely encountered (Roman, Achim & McGee, 2023). According to some estimations, organized crime costs the European Union between 2.0 and 2.7 billion euros annually. This amounts to between 1% and 1.6% of the E.U. budget for 2020, which is 160 billion EUR (CSES, 2021). Official data reveals that there is a greater willingness to break the rules when applying for EU subsidies at the level of some EU member states. It has been noted that the former communist nations—Romania, Poland, Slovakia, and the Czech Republic—that entered the Union after 2004 are among the top nations with the highest amount of frauds or anomalies that have been detected. Spain, Italy, the United Kingdom, Germany, and Portugal are among the western European nations that report having a high number of cases (Roman et al, 2022). In addition, for the period 2014-2020, the level of absorption of European funds was negatively influenced by corruption (Roman, Popescu & Achim 2023).

The rest of the paper is organized as follows: The "Literature Review" section analyzes and evaluates existing research. The "Research Methodology" section describes the techniques, variables, and work data. The "Results and Discussions" section presents and comments on the results obtained. The "Conclusions" section highlights the main conclusions of the paper.

2. A BRIEF REVIEW OF THE LITERATURE

We find the concept of rural development all more mentioned today. Although it is a new concept, it has appeared in the literature since the 1980s. The humility of maintaining rural areas by diversifying the rural economy leads to improved quality of life in rural areas. The objective of rural development is to avoid the migration of the population from rural to urban areas and to try to use natural resources in other economic sectors.

The concept of the E.U.'s agricultural policy has been mentioned since 1957, in the Treaty of Rome, because the economies of the six states were predominantly agricultural, and food security was a priority today and abroad. Thus, in 1962, the Common Agricultural Policy of the European Union came into force.

According to Profiroiu and Profiroiu (2008), the following arguments were based on the establishment of the Common Agricultural Policy (from now on referred to as the CAP): "Agricultural activity cannot be compared with other economic activities. The production in this domain comes from several sectors and depends on climatic influences. The difficulties encountered in balancing agricultural production, in collaboration with the constant demand for food, could lead to significant price fluctuations within the Union if it did not take measures to regulate the market. 50% of the E.U.'s population lives in rural areas, representing 80% of the community's territory " (Profiroiu et al., 2008).

Rural development policy is currently the second pillar of the CAP and plays an essential role in solving the problems facing the "school." Strengthening rural development policy is a

priority for the E.U., as it seeks to stimulate job creation in rural areas, improve the quality of life in rural areas, and create rewards for sustainable development.

Since the last statement of CAP in 1957, within the Treaty of Rome framework, this European Union policy has undergone a series of changes and improvements. During this chapter, we will see the evolution of this policy and the reforms applied to the CAP.

The evolution of the CAP has been a complex process. Only six years after the entry of the CAP into force in 1968, Commissioner Sicco Mansholt drew attention to the need to introduce radical reforms. The commissioner's report highlighted the rising costs of the standard agricultural policy and overproduction. The Mansholt plan contained a set of proposals that should have changed the form of the CAP by 1980. The plan suggested an increase in the size of farms, their specialization, their modernization, the withdrawal of 5 million hectares of agricultural land for afforestation and recreational purposes, and a reduction in the number of people employed in E.U. agriculture (6) from 10 million, in 1968 to 5 million in 1980. This would have been achieved through a system of early retirement of older farmers and the retraining of others.

However, this reform was rejected by the Member States at the time, as it was considered far too radical. Despite rejecting the Mansholt plan, the European Commission continued its aspirations to reform the CAP. Although on a less ambitious scale, these attempts were incorporated into various works in the period 1973-1985, which were much more analytical than the initial reform.

An excellent opportunity to change the CAP was immediately after the first wave of accession in 1973, when the United Kingdom, Denmark, and Ireland joined. In addition, enlargement has made the E.U. a significant player in the world market for agricultural products. However, the CAP has remained virtually unchanged. As a result, self-sufficiency for most agricultural products led to a doubling of CAP expenditure between 1975 and 1985. Throughout the 1980s, the CAP was in a constant crisis. This was due not only to the growing surplus of all essential agricultural products but also to the rapid increase in expenditure. Aware of this problem, the E.U. implemented various measures in that decade, but these have had a limited impact on mitigating the significant problems of the CAP (costs and surpluses). The measures included co-responsibility fees. These taxes have been applied to sugar production since the beginning of the CAP. The purpose of these taxes was to make sugar producers bear part of the CAP's expenditure on this commodity and reduce sugar production. In practice, the tax burden has shifted to consumers, and guaranteed threshold prices for cereals reduced support prices for the following year if production exceeded the agreed level. However, pre-production quotas were set relatively high, so their impact could have been much higher. The experience with milk market shares was similar.

The MacSharry Plan (proposed by Commissioner Raymond Mac Sharry) in 1992 was the first real reform of the CAP. The changes were less profound than some economists would have liked.

In essence, the MacSharry Reform proposed: “lowering the guaranteed price of agricultural goods, as the main instrument against overproduction and in favor of expanding the domestic market; the establishment of the land rest period in favor of the adjustment of cultivated areas and agricultural production capacities according to market demand; however, this is linked to a new system of specific aid, those to compensate for the consequences of falling prices on farmers' incomes; to these measures of economic-financial principle were added others aimed at rural development, with an emphasis on environmental protection.” (Liviu, 2009).

In Jovanovic Miroslav's view, the MacSharry reform had to bring at least two types of gain to the E.U. budget. Firstly, a reduction in prices would reduce the incentives for overproduction, and secondly, a reduction in prices would eliminate part of the tax that

consumers pay. The problem with this reform was that it benefited farmers with below-average yields, while those farmers who practiced efficient agriculture were discouraged. The reform sanctioned large and efficient farmers (Miroslav, 2015.). The E.U. presented the reform as an exclusively domestic matter. However, this was a great concession the Uruguay Round partners granted. Following extensive negotiations, the MacSharry reform was sufficient to achieve the Uruguay Round. Some negotiating partners, such as Japan, considered that the reform went too far, while others, such as the Cairns Group, considered that it offered too little.

The role of Agenda 2000 was also to contribute to the reform of the E.U. and, at the same time, to prepare it for enlargement to the East in 2004. Agenda 2000 refers to the European model that should be adopted for the 21st century. It covers the following three dimensions:

Economic: Agriculture needs to be competitive, and gradually, it needs to cope with global competition without excessive subsidies. The market balance needs to be improved.

Social: The farming community must have a stable income and a reasonable standard of living. This social dimension must provide a diversification of sources of income for households.

Environment: The production should be environmentally friendly (ecological). Agricultural products should be of high quality, safe, and to the taste of consumers (Miroslav, 2015).

In addition, the future European model of agriculture should take into account the following elements:

Agricultural production should not be limited to quantity. Rural communities and European traditions must also be maintained.

Policymaking in agriculture should be simplified and easier to understand. A clear distinction must be made between what the E.U. wants and what the Member States need.

Expenditure for the CAP should align with the services it provides and the company's requirements in terms of expectations from the agricultural sector. Budgetary constraints must be taken into account when setting specific measures.

3. BIBLIOMETRIC ANALYSIS, METHODS

In carrying out this part, the focus is on existing research, both nationally and internationally, conducted by specialists. In this paper, through the bibliometric analysis of this topic, we propose to add value to the specialized literature. Starting from the bibliometric analysis, we will move on to the detailed analysis of the specialized literature. At the same time, the information provided reveals a way to visualize the results as clearly as possible in the form of scientific maps. Through this analysis, we test the quantitative aspects of the information. The literature on European funds published in 1900-2021 was selected from the Web of Science database. This analysis is based on data extracted from publications, bibliographic references, citations, and authors; through this information, we have the opportunity to examine the historical developments between individual scientific fields and the discovery of relationships between disciplines.

Bibliometric analysis allows us to select information from a quantitative perspective, using mathematical and descriptive statistical methods to obtain results. The source of information for bibliometric analysis is records found in databases such as the Web of Science, which is an online database that provides access to the following citation indexes: Extended Science Citation Index (SCIE) and Social Science Citation Index (SSCI).

Our contribution focuses on the descriptive statistics used. The statistical methods used in the bibliometric analysis will be presented with the help of bibliometric maps. The search terms used to identify the nearest publication included keywords such as "European funds" on the Web of Science platform, the period analyzed being 1900-2021, for documents that meet

the requirements of the year of publication, language, journal, title, author, affiliation, keywords, document type, abstract and number of citations that were exported in txt format. The query for the database was 01.03.2021.

3. RESULTS

Bibliometric analysis of publication output

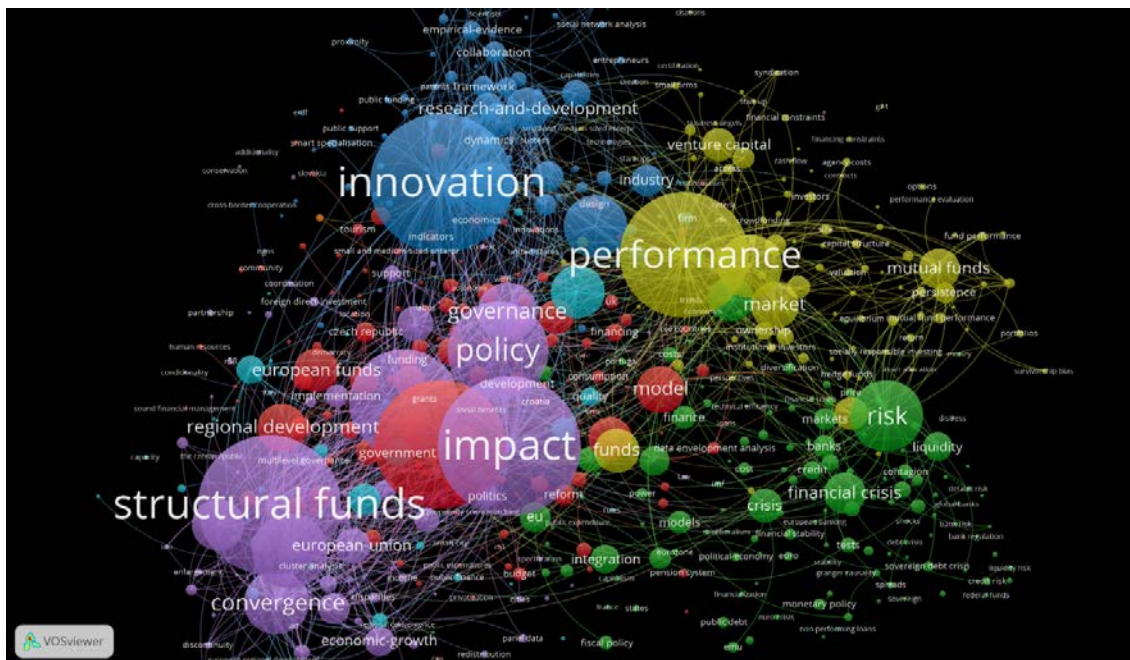
On the chosen topic, we identified 7745 articles in the WOS database between 1900 and 2021, which included 4895 research articles, 1850 proceedings papers, 116 reviews, 199 books, and 594 early access. Of these, 4589 were published between 2010 and 2021, and the rest were published between 1975 and 2021. Almost all publications were written in English (5698), followed by 150 publications in Chinese and the rest in other languages.

Bibliometric analysis of the keywords

The keywords provided by the authors of the paper, which appeared more than ten times in the primary WOS database, were entered in the final analysis. Of the 50,000 keywords, 1658 reached the threshold. The most common keywords were "European funds" (total link strength 2,649), which were strongly linked to "structural funds," "performance," and "innovation." (Figure 1).

A word cloud was also created to show the frequency of keywords that appeared more than 15 times. It was indicated that "European funds" were most often followed by "structural funds" and "governance" (Figure 2).

Figure 1. Keyword map



Source: authors' processing using Vosviewer

Bibliometric analysis of keywords from "European funds" publications. Co-occurrence of keywords. The size of the nodes indicates the frequency of occurrence. The curves between the nodes represent their co-appearance in the same publication. The smaller the distance between two nodes, the greater the co-occurrences of the two keywords.

Figure 2. Keyword Cloud



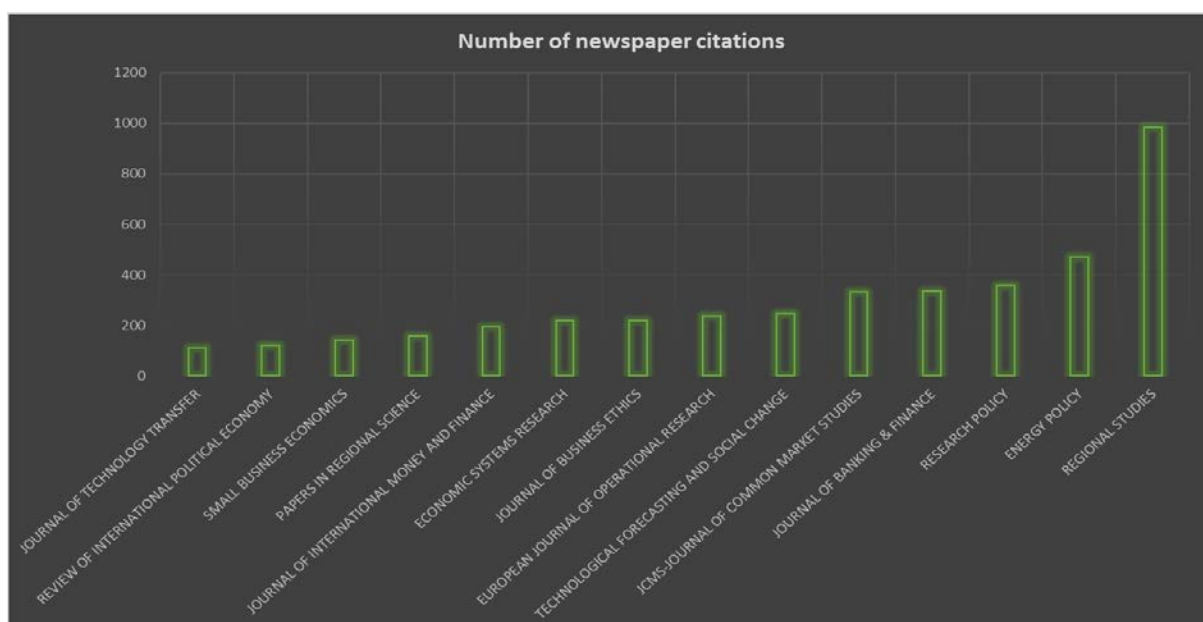
Source: author processing using WordCloud

Word Cloud 256 keywords that appeared over 15 times were entered. Font size is the frequency of occurrence. Keywords such as "structural funds" and "governance" were identified and other words related to the topic studied, but they are rarer than those mentioned above.

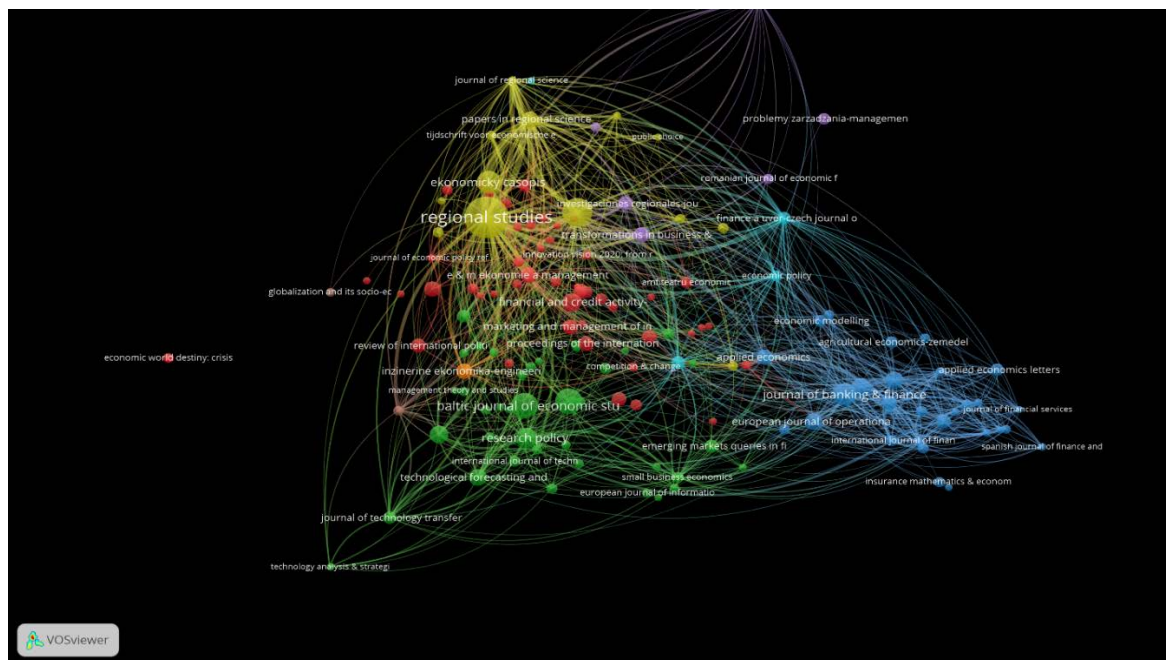
Bibliometric analysis of the citations and publications

Many journals have published papers with European funds, and 14 have published more than five articles. The most cited journal was Regional Studies, with 984 citations, followed by Energy Policy (Figures 3 and 4)

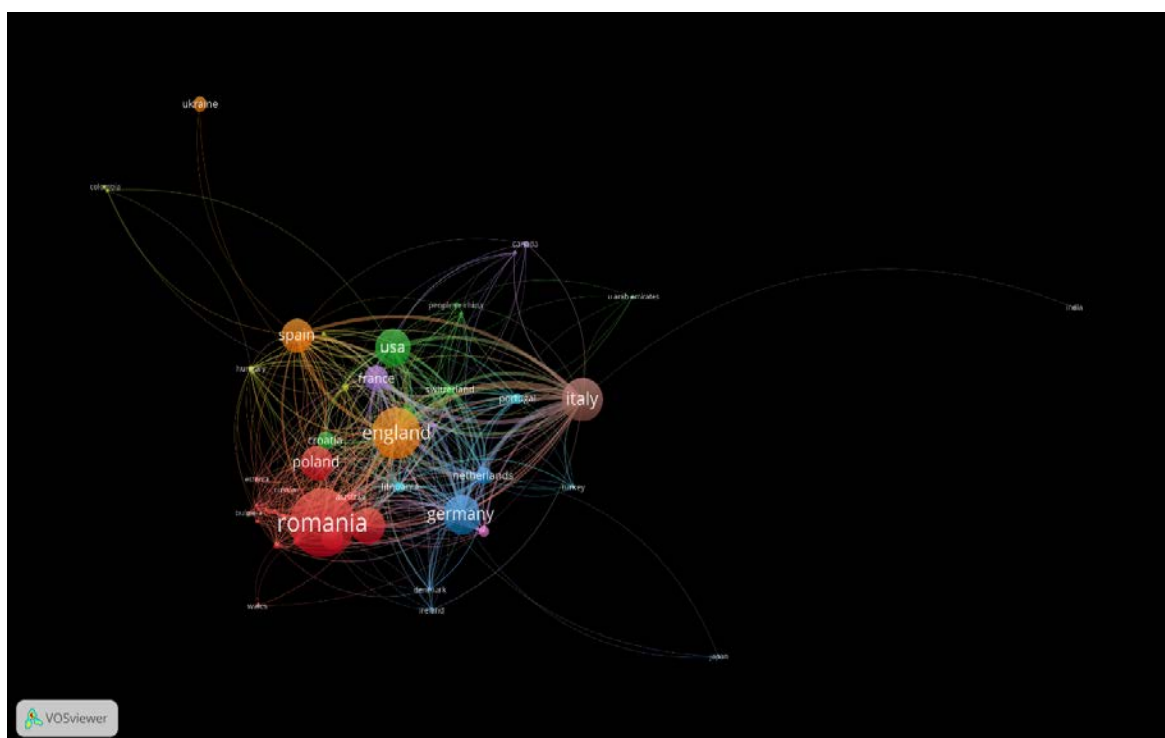
Figure 3 The most essential 14 active journals



Source: authors' processing

Figure 4 Map of citation journals

Source: authors' processing through the VOSviewer program

Figure 5. Countries where European-funded publications have been published

Source: authors' processing using Vosviewer

The size of the nodes indicates the frequency of occurrence. The curves between the nodes represent their co-appearance in the same publication. The smaller the distance between two nodes, the greater the co-occurrences of the two keywords.

5. CONCLUSIONS

European funds are those tool financial institutions created by the European Union for its members. Most of the European financial allocations for European Union countries represent funds made available for investments in regional development. However, it is essential to ensure that it does not lack development compared to other countries. We can see an increased interest in studying this topic through bibliometric analysis using "European funds" as keywords. The findings also show that the most cited journals in the field of European funds are Regional Studies, with 984 citations, followed by Energy Policy. Several 7745 articles were identified in the WOS database between 1900 and 2021, which included 4895 research articles, 1850 proceedings papers, 116 reviews, 199 books, and 594 early access. Of these, 4589 were published between 2010 and 2021, and the rest were published between 1975 and 2021. It is essential to evaluate the quality of such a large number of research papers and to obtain valuable information.

In future studies, we intend to expand our research on the literature and the application of existing models in the literature. It is essential to evaluate the quality of such a large number of research papers and to obtain valuable information.

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