

EUROPEAN FUNDS AND REGIONAL DEVELOPMENT IN ROMANIA: A BIBLIOMETRIC MAPPING OF THE LAST 10 YEARS

VICENTIU-MIHAI MATEESCU

PHD STUDENT

e-mail: vicentiumateescu@gmail.com

ANDREEA-MARIA MANESCU

PHD STUDENT

e-mail: manescuandreea19@stud.ase.ro

ANA-MARIA IVANCENCU

PHD STUDENT

e-mail: anamariaivancencu@gmail.com

Abstract

Funding from the European Union has turned into a key tool for driving economic, social, and territorial growth in Romania. Ever since Romania joined the EU in 2007, the European Structural and Investment Funds, along with Cohesion Policy instruments, have been crucial for funding infrastructure, boosting regional competitiveness, developing human capital, fostering innovation, supporting environmental changes, and promoting social inclusion. However, the success of these European funds is still tied to factors like regional disparities, the capacity of institutions, how well funds are absorbed, and the quality of governance.

This piece of writing aims to present a comprehensive overview of the scientific studies that have looked into European funds and regional growth in Romania over the past decade. The research involves a systematic bibliometric analysis of publications listed in major scientific databases, focusing on Web of Science and Scopus. By combining descriptive bibliometrics and science-mapping techniques, the analysis seeks to track how scientific output has changed, spotlight key publications and authors, examine collaboration trends, identify leading research topics, explore networks of keyword co-occurrence, and highlight emerging research paths.

The analytical framework being proposed brings together analyses like bibliographic coupling, co-citation, co-authorship, and keyword co-occurrence. It pays special attention to the interplay between European funding and areas like regional disparities, territorial cohesion, rural development, innovation, sustainability, institutional capacity, and economic convergence. This study adds to existing knowledge by offering a structured insight into the growth of research concerning European funds and regional development in Romania while also pointing out research gaps. The results are anticipated to guide future investigations on how effective European funding is and its role in achieving balanced and sustainable regional development in Romania.

Keywords: European funds; regional development; Romania; Cohesion Policy; European Structural and Investment Funds; bibliometric analysis; regional disparities; territorial cohesion; rural development; sustainability.

Clasificare JEL : R11, R58, O18, O52, C89

1. Introduction and context of the study

European Union funding represents one of the main instruments for reducing economic and social disparities between European regions. Through Cohesion Policy, the European Union supports investments in infrastructure, employment, innovation, competitiveness, environmental protection and social inclusion, with particular attention to less-developed regions.

For Romania, European funds have become increasingly important since EU accession in 2007. During successive programming periods, substantial financial resources have been allocated to regional development, transport infrastructure, human capital, research and innovation, environmental protection and rural development. The 2021–2027 programming period further

strengthens the importance of these resources, with Romania receiving more than 31 billion euro through Cohesion Policy instruments. Despite this significant financial support, regional disparities remain an important characteristic of the Romanian economy. Differences in productivity, infrastructure, innovation capacity, human capital and institutional performance continue to separate the country's development regions. Consequently, European funding has become an important subject of academic research.

The literature has approached the topic from several perspectives. Some studies have examined the contribution of European funds to economic growth and regional convergence, while others have focused on firm performance, rural development, innovation, institutional capacity and sustainability. Research has also highlighted the fact that financial absorption alone does not necessarily guarantee long-term regional development. In this context, bibliometric analysis provides an effective method for understanding the development and structure of the scientific literature. By examining publications, citations, authors, institutions and keywords, bibliometric methods can identify the dominant themes and the evolution of research priorities.

The objective of this paper is therefore to provide a concise bibliometric mapping of research concerning European funds and regional development in Romania during the last decade, highlighting the main scientific trends and emerging areas of interest.

2. Literature review

European Cohesion Policy has traditionally focused on reducing regional disparities and supporting economic convergence. However, the effectiveness of these interventions depends on several factors, including institutional capacity, the quality of investments, governance and the ability of regions to transform financial resources into sustainable development.

In Romania, studies have identified significant differences between the eight development regions. Pîrvu et al. (2018) showed that, although Cohesion Policy contributed to regional development, substantial territorial differences continued to exist, particularly between Bucharest-Ilfov and the other Romanian regions. European funding has also been analysed at the firm level. Bostan et al. (2022), focusing on Romania's North-East Region, found that Structural and Cohesion Funds can generate positive effects on firms and contribute to regional development. Such findings suggest that European funding can support competitiveness and economic activity, although its impact varies according to regional and institutional conditions. More recent research has expanded the scope of analysis. European funds are increasingly associated with innovation, digitalisation, green transition, sustainable development and smart specialisation. This evolution reflects the changing priorities of European policy, where financial support is increasingly expected to contribute not only to economic growth but also to long-term resilience and sustainability. Rural development represents another important dimension, particularly relevant to Romania because of the country's large rural territory and significant rural population. European agricultural and rural development funds have supported investments in infrastructure, agriculture, entrepreneurship and diversification of rural economies.

Overall, the literature indicates that European funds should be considered not simply as financial resources, but as instruments capable of influencing the broader economic, social, institutional and environmental development of Romanian regions.

3. Research methodology

The study employs a bibliometric research design combining quantitative performance analysis with science mapping.

The analytical framework consists of four main stages:

1. identification and collection of relevant scientific publications;
2. descriptive bibliometric analysis;

3. network and thematic analysis.

The methodology follows established principles of science mapping and is designed to ensure transparency and reproducibility.

First, greater attention should be given to the long-term impact of European funding. Measuring the amount of funding absorbed provides limited information about whether investments generate lasting economic and social benefits.

Second, future research should examine more closely the relationship between institutional capacity and funding effectiveness. Administrative quality, governance and local implementation capacity can significantly influence the results of European-funded projects.

Third, the relationship between European funding and rural development deserves continued attention. Research could increasingly integrate rural development with broader regional development strategies rather than treating them as separate policy areas.

Finally, the green and digital transitions represent emerging priorities. The interaction between European funding, innovation, digitalisation, environmental sustainability and regional competitiveness is likely to become increasingly important during the 2021–2027 programming period.

4. Results and discussion

The bibliometric mapping of the literature published between 2015 and 2025 highlights a growing academic interest in the relationship between European funds and regional development in Romania. The analysed literature is multidisciplinary, bringing together research from economics, regional development, public administration, rural development, innovation and sustainability.

A first major research direction concerns the relationship between European funding and economic development. A significant part of the literature examines the contribution of European funds to investment, economic growth, employment and competitiveness. The findings generally indicate that European funding has supported economic activity and development, particularly through investments in infrastructure, enterprises and local development. However, the impact of funding is not uniform across regions and depends on the capacity of local and regional actors to implement projects effectively.

A second important theme is represented by regional disparities and territorial convergence. Romanian development regions continue to display considerable differences in economic performance, infrastructure, productivity and human capital. The literature suggests that European funds have contributed to reducing some of these disparities, but have not been sufficient to eliminate structural differences between regions. The Bucharest-Ilfov region remains significantly more developed than most other Romanian regions, while less-developed regions continue to face structural constraints.

Another relevant research area concerns rural development. European funds have supported agricultural activities, rural infrastructure, entrepreneurship and diversification of rural economies. The literature indicates that these interventions can improve local economic opportunities and living conditions, although their long-term effects are strongly influenced by demographic decline, limited infrastructure and reduced institutional capacity in some rural areas.

The bibliometric mapping also reveals increasing attention to innovation, competitiveness and digitalisation. Recent studies increasingly connect European funding with research and development, technological development, smart specialisation and digital transformation. This represents a shift from an infrastructure-centred approach towards a development model based increasingly on knowledge, innovation and competitiveness. A further emerging theme is sustainability and the green transition. The recent literature

increasingly associates European funding with environmental protection, energy efficiency, climate objectives and sustainable development. This trend reflects the changing priorities of European Cohesion Policy and the growing importance of integrating environmental objectives into regional development strategies. The analysis also highlights the importance of institutional capacity and governance. The effectiveness of European funding cannot be evaluated exclusively through absorption rates. Administrative capacity, project management, institutional cooperation and the ability to design and implement development strategies influence the extent to which financial resources generate sustainable results.

Overall, the evolution of the literature suggests a gradual transformation of the research agenda. Earlier studies were mainly concerned with absorption, investment and economic growth, while more recent research has increasingly focused on sustainability, innovation, digitalisation, territorial cohesion and the long-term impact of European funding. This evolution reflects both changes in Romanian development priorities and the transformation of European Cohesion Policy itself.

5. Conclusions

European funds have become an essential instrument for supporting regional development in Romania and an increasingly important subject of academic research. The literature analysed over the last decade demonstrates that European funding has contributed to investment, economic development, infrastructure improvement, rural development and regional competitiveness.

At the same time, the evidence indicates that the availability of European financial resources does not automatically lead to balanced territorial development. Persistent regional disparities suggest that the effectiveness of European funds depends on broader economic, institutional and demographic conditions. Absorption capacity, governance, human capital and the quality of implemented projects are therefore critical factors in determining long-term outcomes. The evolution of the research field also demonstrates a clear shift in priorities. While earlier studies concentrated mainly on absorption, investment and economic growth, recent research increasingly addresses innovation, digitalisation, sustainability, green transition and territorial cohesion. This transition is particularly relevant in the context of the 2021–2027 programming period. Future research should place greater emphasis on the long-term impact and sustainability of European-funded investments, rather than focusing primarily on financial absorption. More integrated approaches are also needed to examine the relationship between European funds, regional competitiveness, institutional capacity, rural transformation, demographic change and environmental sustainability.

In conclusion, European funding remains a major opportunity for Romania's regional development, but its success depends on how effectively financial resources are transformed into lasting economic, social and environmental benefits. The main challenge for Romanian regions is therefore not only to attract and absorb European funds, but to use them strategically in order to achieve balanced, innovative and sustainable regional development.

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