

Research on Education Financing in Romania: A Consolidated Trend or an Emerging Field?

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Abstract. Education financing represents a key determinant of human capital development, social cohesion, and long-term economic performance. In the context of Romania, this topic has gained increasing relevance due to persistent underfunding, regional disparities, and a strong dependence on European structural funds. Despite its policy importance, the academic literature addressing education financing in Romania remains fragmented and unevenly visible at the international level. Against this background, the present study aims to provide a comprehensive bibliometric mapping of the scientific literature on education financing in Romania. Using data extracted from the Web of Science database for the period 1995–2025, the analysis applies established bibliometric techniques, including publication trend analysis, keyword co-occurrence, author and institutional co-authorship networks, bibliographic coupling, and citation analysis. The visualization and network mapping were conducted using VOSviewer, allowing for the identification of dominant research themes, influential authors and institutions, and emerging directions within the field. The results reveal a relatively limited and fragmented body of literature, characterized by episodic growth linked to European funding cycles and a strong thematic focus on higher education, European funds, and regional development. Emerging topics such as digitalization, entrepreneurship education, and social inclusion are gaining visibility, yet remain insufficiently consolidated. At the same time, key dimensions such as pre-university education, teacher training, and the sustainability of domestic funding mechanisms are underexplored. Overall, the findings highlight the need for stronger academic collaboration, greater international integration, and a more diversified research agenda to enhance the visibility and policy relevance of education financing research in Romania.

Keywords: Education financing; Romania; bibliometric analysis; Web of Science; VOSviewer; higher education; European funds; research trends.

JEL Classification: I22, H52, O15

1. Introduction

Education financing has long been recognized as a fundamental pillar of economic development, social cohesion, and long-term competitiveness. Investments in education contribute directly to the accumulation of human capital, the reduction of social inequalities, and the enhancement of labor market outcomes, making education a strategic policy priority across both developed and emerging economies (Hanushek & Woessmann, 2008; OECD, 2019). In the European Union, education financing is closely linked to broader objectives such as economic convergence, social inclusion, and sustainable development, being strongly influenced by cohesion policies and multiannual financial frameworks (European Commission, 2020).

Within this broader context, Romania represents a particularly relevant case. Despite sustained efforts to reform its education system since the post-transition period, Romania continues to face structural challenges related to underfunding,

regional disparities, and uneven educational outcomes when compared to the European average (World Bank, 2018; European Commission, 2022). Public expenditure on education remains relatively low, while the system relies heavily on European structural and investment funds to support modernization, digitalization, and inclusion-oriented initiatives. This dependence on external funding sources has shaped both policy priorities and research agendas, positioning education financing at the intersection of national reforms and European policy frameworks.

From an academic perspective, education financing has attracted growing attention over the past decades, generating a diverse body of literature that addresses issues such as funding allocation mechanisms, performance-based financing, equity, decentralization, and the impact of financial resources on educational outcomes (Heller, 2001; Johnstone & Marcucci, 2010; Salmi & Hauptman, 2006). However, existing studies are often fragmented, context-specific, and unevenly distributed across countries and educational levels. In the case of Romania, research on education financing remains relatively limited in scope and visibility, with contributions dispersed across disciplines and publication outlets, and only partially integrated into the broader international debate.

In this context, bibliometric analysis offers a valuable methodological framework for systematically examining the evolution, structure, and impact of scientific research in a given field. By combining quantitative indicators with network-based and conceptual mapping techniques, bibliometric methods allow for the identification of dominant research themes, influential authors and institutions, collaboration patterns, and emerging research directions (Zupic & Čater, 2015; Aria & Cuccurullo, 2017; Donthu et al., 2021). Such analyses have been increasingly applied in fields related to economics, education policy, and public finance, providing robust evidence on knowledge dynamics and research gaps.

Despite the growing use of bibliometric approaches at the international level, there is still a lack of comprehensive bibliometric assessments focused specifically on education financing in Romania. Existing studies tend to analyze education financing either within broader European comparisons or as part of sectoral evaluations, without offering a systematic mapping of the Romanian academic literature itself. As a result, key questions regarding the maturity of the field, its thematic orientation, degree of internationalization, and institutional collaboration remain insufficiently explored.

Against this background, the present article aims to provide a comprehensive bibliometric mapping of the scientific literature on education financing in Romania, using the Web of Science database and advanced visualization techniques implemented through VOSviewer. The study seeks to identify publication trends, dominant research themes, influential authors and institutions, and the most impactful contributions, while also highlighting existing gaps and underexplored dimensions. By doing so, the article contributes to a clearer understanding of how education financing has been conceptualized and studied in the Romanian context and offers a solid empirical basis for future research and evidence-based policy discussions.

2. Materials and methods

Bibliometric analysis represents one of the most widely used methods for evaluating and mapping scientific production, as it combines quantitative rigor with the ability to capture conceptual and relational developments within a research field. Numerous studies have demonstrated its usefulness in understanding the evolution of academic domains—whether in financial economics, education financing, or educational policies—by identifying dominant themes, influential authors, and emerging research directions (Donthu et al., 2021; Aria & Cuccurullo, 2017; Zupic & Čater, 2015; Badareu et al., 2024; Doran et al. 2025; Badareu et al., 2025; Grecu et al., 2025). In this context, bibliometric analysis applied to education financing enables

not only the quantification of accumulated knowledge, but also the assessment of its impact on public policies and social development.

In the specialized literature, the most commonly used databases for bibliometric analyses are Web of Science (WoS) and Scopus, both recognized for their extensive coverage and consistency of results (Archambault et al., 2009; Mongeon & Paul-Hus, 2016). However, for the purposes of the present research, the analysis relied exclusively on the Web of Science database, which was considered sufficiently robust and relevant for the objectives of the study. The units of analysis consisted of scientific articles published in indexed journals, regarded as the most current and credible sources of knowledge in the field (Rodríguez-López et al., 2020). The selected time span covers the period 1995–2025, given that relevant literature on education financing is virtually nonexistent prior to this interval.

For the construction of the database, the Web of Science platform was also used, where systematic searches were conducted using the expression “the funding of education Romania.” To avoid omitting relevant studies that employ alternative terminology, the search strategy included additional keywords such as “Romania,” “education,” “funding,” and “the funding of education,” combined using the INCLUDE setting (mandatory presence in the selected publications). At the same time, equivalent expressions such as “education financing” and “the funding of the educational system” were incorporated using the OR operator, in order to capture articles addressing the same topic under different linguistic formulations.

It is also important to emphasize that no additional filters were applied with regard to publication language, disciplinary field, or document type, in order to avoid artificially narrowing the selection scope and to accurately reflect the diversity of academic approaches to education financing in Romania. As a result of this selection process, 60 scientific publications were identified, forming the empirical basis for the bibliometric analysis presented in the subsequent subsections.

The software tools used included WoS Analyze Results and Scopus Analyze Search Results for extracting basic bibliometric indicators, and VOSviewer for the visualization and analysis of bibliometric networks (van Eck & Waltman, 2010). In parallel, methods such as keyword co-occurrence analysis and bibliographic coupling were applied. The former enabled the identification of the conceptual structure of the field based on the frequency with which two terms co-appear within the same publication, reflecting thematic proximity and the “cognitive maps” of the domain (Noyons, 2001). The latter, bibliographic coupling, was used to capture recent publications by identifying those that share common references, even if they have not yet accumulated a significant number of citations, thus allowing the identification of emerging research trends (de Queiroz, 2021; Donthu et al., 2021).

VOSviewer facilitated the construction of visual maps of co-occurrence, co-citation, and co-authorship networks, in which the units of analysis (authors, keywords, publications) are represented as nodes, while the connections between them are depicted as links whose intensity reflects the strength of the relationship. Node size is proportional to frequency of occurrence, and colors indicate membership within specific thematic clusters. This graphical representation provides an intuitive overview of the structure of the field, dominant themes, and emerging research directions (Valenzuela et al., 2017).

Thus, the adopted methodology integrates the quantitative rigor of bibliometric indicators—such as the number of publications, citation counts, and impact metrics—with the analytical power of network visualization and qualitative interpretation of thematic patterns.

3. Results and discussion

To ensure a clear and coherent structure of the analytical approach, the bibliometric analysis is organized into several complementary layers, each capturing an essential dimension of the literature on education financing in Romania (see figure 1).

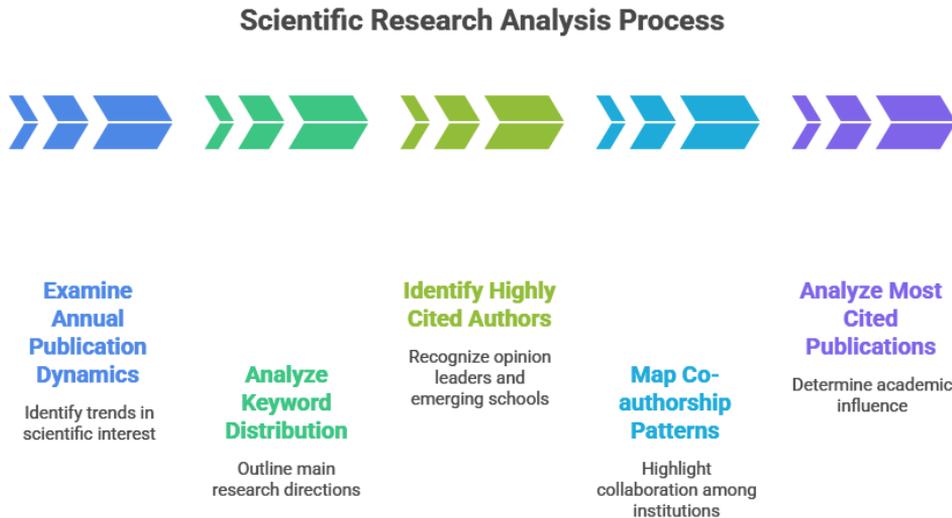


Figure 1. Stages and Dimensions of the Bibliometric Analysis on Education Financing in Romania

Source: Authors' own processing, 2025

First, the annual dynamics of publications (3.1) are examined, allowing for the identification of trends in scientific interest and their correlation with major events and public policies. Next, the focus shifts to the distribution and relevance of keywords (3.2), which outline the main research directions and thematic interconnections within the field. Particular attention is devoted to the contributions and impact of the most highly cited authors (3.3), enabling the identification of opinion leaders and emerging schools of thought. At the institutional level, the analysis is extended to co-authorship patterns at the organizational level (3.4), highlighting the role of universities and research centers, as well as the degree of collaboration among them. Finally, academic influence is mapped through an analysis of the most cited publications (3.5), in order to identify the works that have most significantly shaped the development of knowledge in the field of education financing in Romania.

By addressing these dimensions, the chapter aims to provide a comprehensive and critical overview of the current state of research, to highlight dominant trends, and to underline existing gaps that may represent fertile directions for future investigation. In this way, the bibliometric analysis becomes not merely a descriptive exercise, but also a strategic tool for strengthening the relevance and international visibility of Romanian research.

3.1. Analysis of the Annual Dynamics of Publications in the Field of Education Financing in Romania

The analysis of the temporal distribution of scientific publications is a key instrument in bibliometric research, as it provides insight into the evolution of academic interest and the degree of maturity of a research field. By examining annual publication trends, it becomes possible to identify periods of intensified scholarly attention, as well

as phases of stagnation or decline, and to relate these patterns to broader socio-economic, political, and institutional developments. In the field of education financing, such an approach is particularly relevant given the strong dependence of public policies on budgetary cycles, European funding frameworks, and major economic or social shocks.

Figure 2 presents the annual evolution of publications addressing education financing in Romania. Based on data retrieved from the Web of Science database, a total of 60 scientific publications were identified, unevenly distributed over the last three decades. This temporal distribution reveals a discontinuous yet meaningful trajectory, highlighting both the gradual emergence of the topic and the sensitivity of research output to policy reforms and funding opportunities.

During the 1990s and the early 2000s, research on education financing in Romania remained marginal, with only one to two publications per year. This limited academic output reflects the early stage of post-transition reforms, the underdeveloped research infrastructure, and Romania's limited access to European funding mechanisms prior to EU accession. Studies from this period were largely descriptive, focusing on institutional arrangements and general policy orientations, with limited use of quantitative methods or international comparisons.

A significant turning point can be observed in 2010, when the number of publications reached its highest level in the analyzed period. This surge in scientific output can be directly linked to Romania's accession to the European Union in 2007 and the implementation of the Sectoral Operational Programme Human Resources Development (POSDRU 2007–2013), which directed substantial financial resources toward education, training, and social inclusion. In addition, the global financial crisis intensified academic interest in education financing, as fiscal constraints prompted debates on budget allocation efficiency, sustainability, and the economic returns to educational investment.

Another phase of increased academic activity occurred during 2014–2015, coinciding with the conclusion of the 2007–2013 European financial framework and the launch of the 2014–2020 programming period. This transition stimulated research aimed at evaluating the impact of structural funds, reassessing national education financing strategies, and addressing emerging challenges related to higher education quality, labor market alignment, and performance-based funding mechanisms. These developments highlight the strong link between European programming cycles and national research agendas.

After 2017, the annual number of publications stabilized at a moderate level, generally ranging between two and four articles per year. This pattern suggests a gradual consolidation of the field and a shift toward greater thematic and methodological diversification. Recent studies increasingly address issues such as digitalization in education, social equity and inclusion, rural and regional disparities, sustainability, and the resilience of education systems in the context of the COVID-19 pandemic. This diversification reflects the growing interdisciplinary nature of education financing research and its alignment with broader socio-economic concerns.

Despite these positive developments, the overall volume of publications remains relatively modest when compared to other public policy domains or to education financing research in other EU Member States. This indicates that, although the field has progressed beyond its initial emergent phase, it has not yet achieved full maturity or strong international visibility. The relatively low citation impact further suggests limited integration of Romanian research into global academic networks.

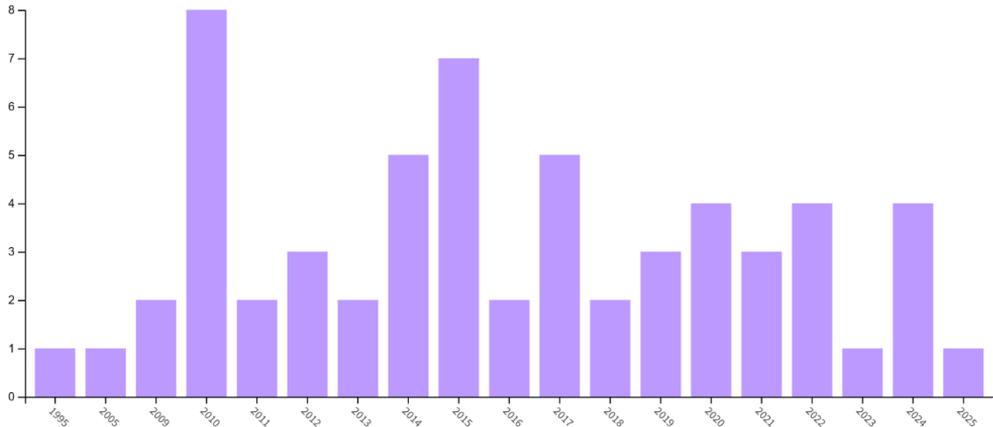


Figure 2. Annual evolution of publications on education financing in Romania

Source: Own processing, using data provided by WOS (Web of Science), 2025.

In conclusion, the temporal analysis of publications reveals that research on education financing in Romania has followed a non-linear but context-sensitive trajectory, with publication peaks closely associated with key moments of European integration and policy reform. While recent years point to a stabilization and broadening of research themes, the field remains underdeveloped relative to its strategic importance, underscoring the need for continued research efforts, stronger international collaboration, and deeper analytical engagement with the role of education financing in Romania’s long-term socio-economic development.

3.2. Distribution and Relevance of Keywords in Studies on Education Financing in Romania

The analysis of author-assigned keywords constitutes a central instrument in bibliometric research, as these reflect both the dominant thematic orientations and the conceptual structure of a scientific field. Beyond their descriptive function, keywords synthesize research priorities, the degree of interdisciplinarity, and emerging or insufficiently explored directions. Through their frequency of occurrence and co-occurrence relationships, they enable the identification of core themes and the connections between different areas of analysis.

In the case of education financing in Romania, the relevance of this analysis is amplified by the multidimensional nature of the field, situated at the intersection of public policies, economic development, social equity, technological innovation, and sustainability. The examination of keywords highlights the ways in which researchers integrate education financing issues into broader debates on social cohesion, regional development, digitalization, and entrepreneurship.

The bibliometric analysis conducted on the 60 publications identified in the Web of Science database provides a detailed overview of the conceptual architecture of the field. Out of a total of 234 author-provided keywords, the application of a minimum threshold of two occurrences resulted in the selection of 96 terms, which were analyzed based on both frequency and total link strength (TLS)—an indicator reflecting the intensity of thematic connections within the network (Figure 3).

At the core of the network are the fundamental terms defining the field and its geographical scope. The term “education”, with 30 occurrences, records the highest frequency and connectivity, being associated with a variety of sub-themes such as “human capital”, “financing”, “efficiency”, “development”, “European funds”, and “structural funds”. The term “Romania”, present in 26 occurrences and exhibiting 33

strong links, anchors the research within the national context and is correlated with concepts such as “entrepreneurship”, “regional development”, “higher education”, “innovation”, and “social benefit”, reflecting a contextualized approach to education financing.

A prominent component of the network is represented by higher education. The term “higher education” appears 20 times and shows 22 strong links, being closely connected to “university” and “quality of education”. This concentration suggests that universities and tertiary education institutions constitute the primary focus of research on education financing. Other concepts related to beneficiaries and the educational process—such as “students” (5 occurrences; TLS 9), “curriculum” (5 occurrences; TLS 5), and “curriculum development” (2 occurrences; TLS 4)—indicate the influence of financing decisions on educational content and learning outcomes.

The institutional and normative dimension is reflected through terms such as “teacher” (2 occurrences; TLS 2), “teaching” (2 occurrences; TLS 1), “teacher training” (2 occurrences; TLS 0), and “educational policies” (2 occurrences; TLS 4). Their connections with terms such as “financing”, “impact”, “innovation”, and “sustainability” highlight the role of financial investment in supporting teachers’ professional development and in adapting educational policies to new socio-economic demands.

A distinct thematic layer is represented by European integration and associated financing mechanisms. The term “European funds” appears eight times (TLS 12) and is correlated with “education”, “quality”, “innovation”, “curriculum development”, and “sustainable development”. Additionally, terms such as “European Union” (5 occurrences; TLS 11), “structural funds” (4 occurrences; TLS 5), “European Social Fund” (2 occurrences; TLS 2), and “European project” (2 occurrences; TLS 4) position education financing within the framework of EU cohesion and development policies. The presence of the concept “cohesion policy” (4 occurrences; TLS 3), alongside “regional development” (8 occurrences; TLS 9) and “rural development” (3 occurrences; TLS 2), highlights the orientation of educational investments toward reducing territorial disparities.

The access dimension is illustrated by the terms “access” (6 occurrences; TLS 3) and “access to finance” (4 occurrences; TLS 2), which frequently co-occur with “education”, “financing”, “higher education”, and “entrepreneurship education”. This correlation indicates that effective access to education is closely dependent on the availability of financial resources, both for institutions and beneficiaries.

The relationship between education, financing, and economic development is reflected by terms such as “economic growth” (4 occurrences; TLS 6) and “economic crisis” (4 occurrences; TLS 4), which situate education financing within a macroeconomic context. Concepts such as “human capital” (5 occurrences; TLS 9), “labour market” (5 occurrences; TLS 11), and “employability” (2 occurrences; TLS 5) support the view of education as a strategic investment in competitiveness. Complementarily, terms such as “innovation” (7 occurrences; TLS 18), “entrepreneurship” (6 occurrences; TLS 12), “entrepreneurship education” (3 occurrences; TLS 5), and “entrepreneurial intentions” (2 occurrences; TLS 3) reflect the role of education in stimulating entrepreneurial initiative and economic adaptability.

The social and inclusion dimension is represented by terms such as “children” (4 occurrences; TLS 5), “school attendance” (2 occurrences; TLS 4), “school participation” (2 occurrences; TLS 3), “equal opportunities” (2 occurrences; TLS 1), “disadvantaged students” (2 occurrences; TLS 1), “marginalised youth” (2 occurrences; TLS 8), and “rural areas” (5 occurrences; TLS 11). Although relevant, these terms show relatively lower frequencies, indicating a still limited approach to issues of equity and social inclusion.

An emerging trend is represented by the digitalization of education. Terms such as “e-learning” (6 occurrences; TLS 7), “virtual learning” (3 occurrences; TLS 4),

3.3. Analysis of the Contributions and Impact of the Most Highly Cited Authors in the Field of Education Financing in Romania

In bibliometric studies, the examination of authors with the highest number of citations represents one of the most relevant approaches for assessing scientific impact and academic visibility within a given research field. Citation counts do not merely reflect the recognition granted by the scientific community to specific works or authors, but also provide an indication of the degree to which these contributions are integrated into the international circulation of knowledge. Highly cited publications tend to function as theoretical and methodological benchmarks, shaping subsequent research directions and serving as reference points for the development of new investigations, thereby confirming the epistemological value of the respective contributions.

In the context of education financing in Romania—a relatively recent field that remains insufficiently explored in the international literature—the analysis of the most frequently cited authors becomes particularly important. Such an approach enables the identification of a nucleus of scientific excellence and highlights researchers who have succeeded in moving beyond a strictly national framework by offering contributions relevant to the global debate on educational policies and mechanisms for allocating financial resources. At the same time, citation analysis provides valuable insights into the degree of internationalization of Romanian research, namely the extent to which domestic publications are recognized and utilized within European and global academic discourse.

Another essential aspect of this approach lies in the fact that citation structures reflect dominant research directions and the main themes shaping the field. Authors with high visibility signal, through their work, recurring areas of interest such as higher education financing, the role of European funds, equity in access to education, the impact of educational investments on economic development, and the interdependencies between education, innovation, and sustainability. From this perspective, citation analysis goes beyond a strictly quantitative exercise, becoming a tool for mapping the scientific field and identifying both consolidated and emerging research directions.

To identify the authors with the greatest visibility in the field of education financing in Romania, the present study relied on the Web of Science database, internationally recognized for the rigor of its indexing process and the quality of its scientific metadata. The retrieved data were subsequently processed and visually mapped using VOSviewer, a well-established bibliometric tool for analyzing co-authorship networks and citation impact. In order to select representative authors, a minimum threshold of 9 citations was established, allowing for the differentiation of researchers with significant visibility in the specialized literature. According to this criterion, out of a total of 172 authors identified in the analyzed corpus, only 38 exceeded the established threshold (Figure 2.4) and were thus considered the relevant core of the academic community active in this field.

Within the resulting network, each node corresponds to an author, while the size of the node reflects the level of visibility, expressed by the total number of citations. The links between nodes indicate the existence of academic connections, generated either through co-authorship or through common citations within the same thematic area. The colors delineate distinct clusters, representing groups of authors who share similar research themes or who collaborate frequently. This structure allows not only for the identification of representative authors but also for a deeper understanding of how research on education financing in Romania is organized around specific thematic directions.

The first cluster, highlighted in red, brings together international authors such as Ondrejovic Miroslav, Miertus Stanislav, Begovic Jelena, Dettenhofer Markus, Durmic-

Pašić Adaleta, Dundar Munis, Slavica Anita, and Gartland Kevan M. A., each with 1 publication and 9 citations. This group is characterized by a high density of links, suggesting a significant degree of collaboration and mutual citation. Their research is predominantly comparative and regional in nature, focusing on education financing in Central and Eastern Europe, with Romania included as a case study. The contributions of this cluster emphasize the transnational dimension, highlighting both differences among educational systems and convergence processes driven by European policies and programs.

The green cluster is centered around Dodescu Anca, the most prolific Romanian author in this field, with 4 publications and 15 citations. In her proximity are Cioban Smaranda, Hatos Adrian, and Hatos Roxana, each with 1 publication and 9 citations. This group constitutes the Romanian core of research focused on entrepreneurial education and the impact of the European Social Fund on social inclusion and human capital development. Dodescu's contributions concentrate on how European funding supports skills development, entrepreneurial education, and the professional integration of vulnerable groups, emphasizing that education financing should be analyzed as an integral component of regional and social development policies.

A third cluster, represented in dark blue, includes Dodescu Anca-Otilia, Botezat Elena-Aurelia, and Pop-Cohut Ioana-Crina, each with 1 publication and 10 citations. The strong links among these authors suggest direct collaboration or pronounced thematic convergence, with research focused on universities, internationalization, and access to European funds. The literature produced within this cluster highlights the role of financing in the modernization of higher education institutions, curriculum development, and Romania's integration into the European educational space.

The yellow cluster consists of Ceptureanu Sebastian and Orzan Mihai-Cristian, each with 1 publication and 9 citations. Their research themes are centered on educational management and institutional innovation strategies, with financing analyzed as a determinant of digitalization and universities' adaptation to the knowledge-based economy. From this perspective, education is examined not only as a formative process but also as an organization requiring effective governance mechanisms and sustainable financial resources.

The orange cluster brings into focus Rusu Valentina Diana and Roman Angela, each with 1 publication and 16 citations. Their research addresses the relationship between financing, human capital, and entrepreneurial education, highlighting the impact of financial resources on skills formation and labor market integration. The econometric analyses employed confirm the hypothesis that education should be understood as an economic investment, yielding returns in terms of competitiveness and regional development.

The purple cluster, composed of Chis Alexandru and Drule Alexandra-Maria, each with 1 publication and 9 citations, is oriented toward educational policies and the transparency of resource allocation. Their studies emphasize the role of institutional mechanisms, decentralization, and regulatory frameworks in shaping the efficiency of education financing, offering a critical perspective on public governance.

The turquoise cluster includes Mayer Susanne and Oesterle August, each with 1 publication and 29 citations. Their high level of visibility indicates a significant impact, particularly through the integration of the educational dimension with social policies and public health. These studies are frequently used in interdisciplinary analyses, demonstrating that education financing extends beyond a strictly academic framework and is closely linked to social welfare and equity.

Beyond the identified clusters, relatively isolated authors also deserve mention, such as Ionita S. (10 citations), whose studies on the decentralization of pre-university education financing and corruption risks remain reference points for understanding the institutional impact on resource allocation. Additionally, Skrinjaric Tihana, with 1

publication and 65 citations, stands out due to exceptionally high visibility, demonstrating the strong international resonance that financial analyses applied to Romanian education can achieve. Similarly, Vogler Sabine (29 citations) has made notable interdisciplinary contributions, strengthening the links between education, social policies, and sustainability.

The analysis of authors who exceeded the minimum threshold of 9 citations, based on Web of Science data and the visual representation generated by VOSviewer, highlights several key conclusions regarding the current state and development trajectories of research on education financing in Romania. First, a polycentric structure emerges, characterized by the absence of a single dominant core and the presence of multiple groups of authors addressing partially convergent yet distinct themes. For instance, the international cluster led by authors such as Ondrejovic, Miertus, Begovic, and Dettenhofer demonstrates the integration of Romanian education financing issues into a broader regional and comparative framework specific to Central and Eastern Europe, enabling a contextual positioning of Romania relative to other educational systems.

Second, the analysis reveals the existence of a coherent Romanian core structured around Dodescu Anca and her collaborators. This cluster is significant as it indicates the presence of a national school of thought focused on entrepreneurial education, social inclusion, and the impact of the European Social Fund. The thematic coherence and collaborative capacity of this group confer upon it the status of a reference point in the specialized literature.

Third, the high visibility of authors such as Skrinjaric Tihana, Vogler Sabine, Mayer Susanne, and Oesterle August demonstrates that research on education financing in Romania can generate substantial international impact, particularly when integrated into comparative or interdisciplinary analyses. However, the fact that these authors do not maintain a consistent body of work focused exclusively on Romania suggests that their visibility stems primarily from transnational approaches rather than sustained interest in the Romanian case.

At the same time, an increasingly pronounced orientation toward managerial and economic approaches can be observed, promoted by authors such as Ceptureanu Sebastian, Orzan Mihai-Cristian, Rusu Valentina Diana, and Roman Angela, who analyze education financing as a strategic investment with effects on human capital, labor markets, and the modernization of universities. This trend reflects a paradigm shift in recent literature, where financing is no longer viewed solely as budgetary allocation but as a tool for stimulating innovation and competitiveness.

Conversely, the analysis also reveals several structural gaps. Most authors have only 1 publication in this field, indicating a low level of consolidation and a fragmented research landscape. Furthermore, the limited links between clusters suggest the absence of a well-defined academic network, both nationally and internationally. In addition, certain essential themes—such as the differentiated impact of financing across educational levels, the long-term sustainability of financing mechanisms, and equity in resource allocation—remain insufficiently explored.

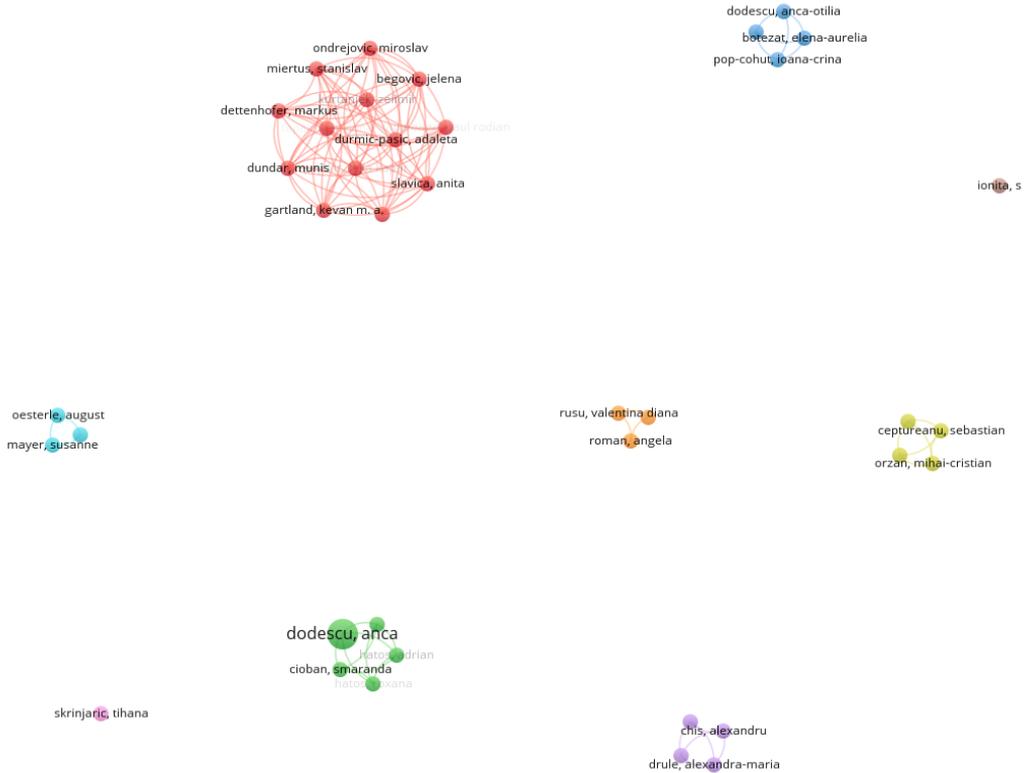


Figure 4. Visualization of Co-Authorship and Bibliometric Connections in Research on Education Financing in Romania
Source: Own processing using VOSviewer, 2025

In conclusion, the analysis of the most highly cited authors shows that the field of education financing in Romania is at an emergent stage, characterized by fragmentation but also by the presence of reference contributions that can serve as a foundation for future developments. The core formed around Dodescu Anca confirms the existence of a coherent national direction focused on entrepreneurial education and European funds; international groups integrate Romania into comparative and interdisciplinary frameworks; and the high visibility of certain authors highlights the internationalization potential of the topic. The main challenge for the future lies in consolidating a coherent academic network with durable collaborations and sustained scientific output, capable of transforming Romania from a mere case study into a methodological and theoretical reference in the global literature on education financing.

3.4. Organizational-Level Co-authorship Analysis

Organizational-level co-authorship analysis represents a fundamental tool in bibliometric research, as it allows for the identification of collaborative relationships among academic institutions and the ways in which they coordinate and allocate research resources. In the case of education financing in Romania, the relevance of this analysis is further enhanced by the intrinsically interdisciplinary nature of the field, which lies at the intersection of economic, social, political, and educational sciences and, in principle, requires strong and sustained institutional partnerships.

The results obtained based on data extracted from the Web of Science database and processed using the VOSviewer application reveal a particular situation: the

organizations that have published on this topic appear as distinct entities, with no visible links among them. The absence of connections indicates a lack of significant inter-university collaboration and suggests that research on education financing in Romania is conducted predominantly in isolation at the institutional level. This finding is highly relevant, as it reflects a high degree of fragmentation within the field and the absence of a consolidated academic network.

In order to highlight the academic centers with recurrent and visible contributions, a minimum threshold of 2 publications per organization was applied. This criterion allowed for a clear delimitation of institutions with a consistent presence in the specialized literature. The results of this selection are summarized in Figure 5.

At the national level, several major academic hubs can be identified. The Bucharest University of Economic Studies (ASE) and the University of Oradea, each with 6 publications, emerge as leaders in terms of academic visibility in the field of education financing. ASE, an institution with a strong tradition in economic research, consistently addresses topics such as the efficiency of resource allocation, public financing policies, and the relationship between education and human capital, thereby integrating the Romanian case into broader European debates on the modernization of higher education systems. The University of Oradea, through the sustained contributions of authors such as Anca Dodescu, has become particularly prominent in the area of entrepreneurial education and the impact of European funds on vocational training, labor market integration, and social inclusion.

The University of Craiova ranks next, with 4 publications, and has oriented its research toward the analysis of human capital and regional development, examining how education financing contributes to reducing territorial disparities. These studies, conducted by authors such as Pîrvu and Domnişoru, emphasize the link between educational investments and regional development dynamics.

Babeş-Bolyai University of Cluj-Napoca, Transilvania University of Braşov, the University of Agronomic Sciences and Veterinary Medicine of Bucharest, and the Polytechnic University of Bucharest, each with 3 publications, confirm both institutional diversity and thematic fragmentation. While universities with an economic profile tend to focus on financing policies and mechanisms, technical and agronomic institutions direct their analyses toward digitalization, educational infrastructure, and applied professional training.

A distinct role is played by technical and vocational universities, such as the "Gheorghe Asachi" Technical University of Iaşi (2 publications), the Mircea cel Bătrân Naval Academy of Constanţa, and Ovidius University of Constanţa (2 publications each). These institutions have introduced into the debate themes related to the training of technical and military personnel, vocational education, and lifelong learning, emphasizing the applied dimension of education financing.

At the international level, two institutions stand out: the Vienna University of Economics and Business and the University of Zagreb, each with 2 publications. Their contributions address Romania within a comparative framework, analyzing financing mechanisms in Central and Eastern Europe and the role of European funds in promoting regional cohesion and university modernization. The presence of these institutions confirms Romania's relevance as a case of interest in European comparative studies; however, collaborations remain limited, bilateral, and insufficiently integrated into a coherent international academic network.

A central finding of this analysis is the complete absence of links among the organizations included in the network. From a bibliometric perspective, the lack of connections between nodes indicates the absence of co-authored publications involving researchers from different universities. In practical terms, each institution conducts research almost exclusively independently, which explains both the thematic fragmentation and the limited visibility of the field. In contrast to other European

countries, where studies on education financing are frequently produced by inter-university research consortia, collaboration in Romania remains minimal. This situation reduces the global impact of research outputs and limits the capacity of academic work to directly influence public policy through a unified scholarly voice.

The conclusions of the organizational-level analysis highlight several key aspects. First, research in this field is dominated by a small number of Romanian universities (ASE, the University of Oradea, and the University of Craiova), which have developed coherent and recurring thematic directions but have not succeeded in building an integrated national research network. Second, international contributions (from Vienna and Zagreb) confirm that Romania represents a relevant case for European comparative studies; however, this potential remains underexploited due to the lack of broader international partnerships. Third, the absence of inter-university collaboration constitutes one of the main weaknesses of the field, as research remains insular, with each institution developing its own trajectory, leading to thematic fragmentation and limited impact.

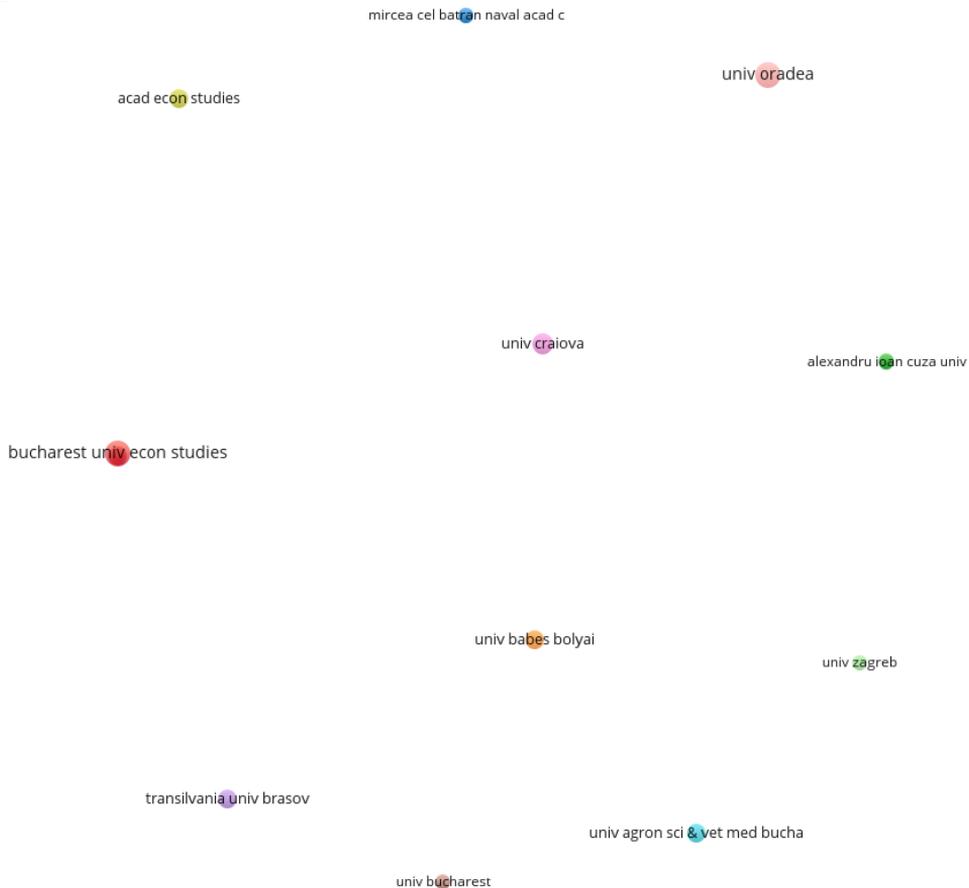


Figure 5. Visualization of Organizational-Level Co-Authorship in Studies on Education Financing in Romania

Source: Own processing, using data provided by WOS (Web of Science).

Overall, this organizational-level co-authorship analysis shows that education financing in Romania is a growing research field, yet one that remains institutionally fragmented and weakly articulated. In order to strengthen international visibility and practical relevance, it is essential to establish national and European academic consortia, encourage interdisciplinary research, and promote the integration of

Romanian universities into international networks of excellence. Only through such a strategic approach can fragmented research be transformed into a coherent center of expertise capable of influencing both academic debates and public policies on education financing.

3.5. Mapping Academic Influence: An Analysis of the Most Cited Publications on Education Financing in Romania

The analysis of the most cited works in the specialized literature on education financing in Romania is of major importance both from a scientific standpoint and from the perspective of designing evidence-based public policies. Extracted from the Web of Science database and summarized in Table 1, these publications stand out through their visibility and impact within the academic community, providing essential theoretical and empirical reference points for understanding a complex and multidimensional field. Examining these studies makes it possible to identify the defining characteristics of debates on education and its financing, as well as to outline major trends in how researchers approach the relationship between financial resources and educational, economic, or social performance.

The importance of such an analysis derives from several fundamental aspects. First, education financing is a structural determinant of human capital development and socio-economic convergence, and Romania, as a member state of the European Union, continues to face persistent gaps relative to the European average in terms of the resources allocated to education. Second, the most highly cited works offer a synthetic overview of the dominant themes and research directions deemed relevant by the scientific community. They highlight not only funding levels, but also related dimensions such as social equity, institutional governance, the integration of European funds, labor market impacts, or the digitalization of the educational process. Third, a comparative reading of these studies facilitates the identification of methodological convergences and divergences—ranging from econometric models and statistical studies to qualitative research and public policy analyses—thereby enabling a more comprehensive understanding of the topic.

Moreover, focusing on the most cited works allows for the identification of conceptual and methodological innovations introduced by researchers, as well as of those conclusions that have had the capacity to influence both public and academic debates. This perspective is not limited to quantifying the volume of funding, but also explores causal relationships between financing and performance, mechanisms of resource distribution, the role of European funds, and the long-term impact of investments in education. At the same time, it also outlines a map of research gaps, by highlighting areas that remain less explored yet highly relevant for future educational policies.

Table 1. Analysis of the Most Highly Impacted Publications in the Field of Education Financing in Romania

Authors	Publication title	Number of Citations	Year of Publication
Pîrvu, R; Badîrcea, R; Manta, A; Lupancescu, M	The Effects of the Cohesion Policy on the Sustainable Development of the Development Regions in Romania	20	2018
Rusu, VD; Roman, A; Tudose, MB	Determinants of Entrepreneurial Intentions of Youth: the Role of Access to Finance	16	2022

Dodescu, AO; Botezat, EA; Constangioara, A; Pop-Cohut, IC	A Partial Least-Square Mediation Analysis of the Contribution of Cross-Campus Entrepreneurship Education to Students' Entrepreneurial Intentions	10	2021
Ionita S	Money for our people? Decentralisation and corruption in Romania: The cases of the equalisation, infrastructure and pre-university education funds	10	2005
Hatos, R; Cioban, S; Bea, G; Dodescu, A; Hatos, A	Assessing the Impact of Entrepreneurial Education on Entrepreneurial Intentions among Romanian Doctoral Students and Postdoctoral Researchers	9	2022
Radu, AC; Orzan, MC; Ceptureanu, S; Stoica, I	User satisfaction regarding healthcare education services financed through the European Social Fund	9	2017
Tigu, G; Andreeva, M; Nica, AM	Education and training NEEDS in the field of visitors receiving structures and tourism services in the lower Danube region	7	2020
Eisemon, To; Mihailescu, I; Vlasceanu, L; Zamfir, C; Sheehan, J; Davis, Ch	Higher-education reform in Romania	7	1995
Achim, MV	The new economy-asking for new education approaches. Evidence for Romania and other post-communist European countries	6	2015
Zamfirache, A; Suciu, T; Anton, CE; Albu, RG; Ivasciuc, IS	The Interest Shown by Potential Young Entrepreneurs in Romania Regarding Feasible Funding Sources, in the Context of a Sustainable Entrepreneurial Education	4	2023
Lucia, CE; Cristian, CM	The role of local public authorities in decentralizing Romanian public education system	4	2010
Fratea, MG; Surleanu, CA; Gusan, O; Smedescu, DI; Vlad, G; Panait, R; Tudor, VC	Analysis of the efficiency of the implementation of financing programs from the European social fund on education in the rural environment in Romania	4	2024
Raicu, A; Raicu, G	Innovation in engineering education through computer assisted learning and virtual university model	3	2015
Atanasescu, D; Prostean, G;	A conceptual model to improve financing capacity of universities - the case of	3	2021

Diaconescu, A	Romania		
Dodescu, AO; Caus, VA; Pop- Cohut, IC; Pop, PA; Borza, A	Impact Assessment of a Radiant University-Wide Program in Entrepreneurship Education. The Case of University of Oradea, Romania	3	2021
Fanea-Ivanovici, M	Financing e-Learning Through Crowdfunding in ROMANIA - An Empirical Investigation	2	2018
Cretu, D; Iova, AR; Lascar, E	Impact of project implementation financed under sop hrd 2007-2013 on development of educational sector in South Muntenia Region	2	2018
Butum, L; Stan, S; Zodieru, A	Development of new capacities for research and teach/learn tools in higher education, using the new financing funds in Romania	2	2015
Dragusin, CP; Domnisoru, S; Avram, M	comparative study between the academic education funding mechanism in Romania and Spain	2	2015
Dragusin, CP	developments, trends and vision in financing public institutions of academic education - the case of Romania	2	2014
Niculescu, L.	Similarities and differences in financing higher education in Romania and united Kingdom	2	2010
Marinescu, DMA	Aspects of Globalisation in Developing Human Capital through Public Financed Projects	2	2010

Source: Own processing, using data provided by WOS, 2025

The most cited paper, with a total of 51 citations, is "Knowledge transfer for frugal innovation: where do entrepreneurial universities stand?" by Fischer, B., Thus, the analysis of the most cited studies constitutes a necessary endeavor for understanding how education financing is conceptualized, assessed, and linked to other dimensions of development in Romania. In the following pages, each selected study will be examined individually, presenting the methodology employed, the results obtained, and its specific contribution to the literature, with the aim of highlighting both recurrent themes and emerging directions in research on this field.

At the outset, the study by Pîrvu et al. (2018, 20 citations), "The Effects of the Cohesion Policy on the Sustainable Development of the Development Regions in Romania," examines the effects of cohesion policy on regional sustainable development. Although anchored at the macro level, the research shows how structural funds create the financial prerequisites for transversal investments—including in education—through the development of human capital and the modernization of infrastructure. The overarching conclusion is that, within the logic of cohesion policies, education is not an isolated sector but rather a pillar of regional development, which justifies consistent and integrated allocations.

Shifting to the micro level of educational intentions and behaviors, Rusu et al. (2022, 16 citations), "Determinants of Entrepreneurial Intentions of Youth: the Role of Access to Finance," employ a questionnaire survey (N = 181, two universities in North-Eastern Romania) and logistic regression to estimate the effect of access to finance on

students' entrepreneurial intentions. The results indicate that "access to finance" is a significant determinant of the intention to enter entrepreneurship, with differentiated effects by gender, university, and locality: for female students, bank loans and personal savings matter, whereas for male students, resources from family/friends are more relevant; in rural areas, business knowledge has a positive effect. The study concludes that educational measures must be complemented by financial instruments tailored to beneficiaries' profiles in order for financing to translate into actual economic initiative.

Along the same line of entrepreneurship education supported through European funding, Dodescu et al. (2021, 10 citations), "A partial least-square mediation analysis of the contribution of cross-campus entrepreneurship education to students' entrepreneurial intentions," apply PLS-SEM on a sample of 313 students (including disadvantaged groups) involved in a European Social Fund (ESF) project at the University of Oradea. The results support a mediation chain: entrepreneurship education influences intentions through self-efficacy, attitudes, norms, and perceived control, with differences across "at-risk" categories. The conclusion is that ESF-funded projects have significant effects when designed inclusively and oriented toward psychosocial mechanisms, not merely toward informational content.

From a critical institutional perspective, Ioniță (2005, 10 citations), "Money for our people? Decentralisation and corruption in Romania: the cases of the equalisation, infrastructure and pre-university education funds," compares three budgetary flows (equalization, road infrastructure funds, and transfers for pre-university education) in order to test the hypothesis of political capture. An analysis of politicization indicators reveals pronounced capture in infrastructure and much lower capture in pre-university education financing, suggesting that clear and transparent allocation mechanisms protect education from rent-seeking, and that institutional design is as important as the volume of funds.

Within the same entrepreneurship-education sphere, but at an advanced level, Hatos et al. (2022, 9 citations), "Assessing the Impact of Entrepreneurial Education on Entrepreneurial Intentions among Romanian Doctoral Students and Postdoctoral Researchers," use content analysis of interviews from the SmartDoct (ESF) project. The conclusions indicate that programs enhance self-efficacy and entrepreneurial intentions; gender and field of study moderate these effects, while role models and social support are highly significant. The study argues that investments in entrepreneurial training at doctoral/postdoctoral level can generate broad effects across the academic and economic ecosystem.

From the perspective of quality in funded services, Radu et al. (2017, 9 citations), "User Satisfaction Regarding Healthcare Education Services Financed through the ESF," conduct two quantitative studies among beneficiaries of a professional training project in medical technologies in Romania. The results show high satisfaction levels for both traditional and online training, suggesting that ESF projects can deliver perceived quality when well designed and adapted to specific needs.

From a historical and systemic perspective, Eisemon et al. (1995, 7 citations), "Higher-Education Reform in Romania," review the post-1989 crisis in universities and propose reform strategies: accreditation, transparent allocation mechanisms for institutions and research, and changes in the academic employment structure. The overarching conclusion is that financing reform and strengthened managerial capacity are necessary conditions for revitalizing higher education—principles that remain highly relevant.

In the area of preferences for funding sources, Zamfirache et al. (2023, 4 citations), in "The Interest Shown by Potential Young Entrepreneurs in Romania Regarding Feasible Funding Sources, in the Context of a Sustainable Entrepreneurial Education," apply a questionnaire survey (N = 285, Brașov) and identify preferred sources: reinvested profit, personal funds, supplier credit, European funds, bank loans,

leasing, and business angels, with high trust in EU funds. The conclusion is that entrepreneurship education must be explicitly connected to accessible financing instruments in order to produce tangible effects.

From a local governance perspective, Lucia and Cristian (2010, 4 citations), "The role of local public authorities in decentralizing Romanian public education system," address decentralization, showing that school assets belong to local administrative units and that local budgets finance schools. The conclusion emphasizes the risk of insufficient resources at local level and the need for feasible solutions to complete decentralization under conditions of efficiency.

In rural areas, with an emphasis on implementation efficiency, Fratea et al. (2024, 4 citations), "Analysis of the Efficiency of the Implementation of Financing Programs from the ESF on Education in the Rural Environment in Romania," consolidate enrollment/graduation trends (since 1990) and document the scale of ESF funding for rural education after 2007. Based on questionnaire analysis, the authors formulate recommendations for optimizing project management and increasing the efficiency of interventions.

Regarding quality-based university financing, Atanăşescu et al. (2021, 3 citations), "A Conceptual Model to Improve Financing Capacity of Universities – The Case of Romania," provide a critical assessment of the indicators used in the Additional Financing (AF) algorithm and propose a conceptual improvement model so that universities can maximize attracted funds. The conclusion is that fine-tuning indicators can have direct effects on universities' financing capacity.

Also focusing on entrepreneurship education at the institutional scale, Dodescu et al. (2021, 3 citations), "Impact Assessment of a Radiant University-Wide Program in Entrepreneurship Education (AntreV)," apply a post-program questionnaire (N = 178, 14 non-economics fields) within an ESF project. The results indicate improvements in entrepreneurial knowledge and attitudes and a higher likelihood of business initiation in the field of study in Romania. The authors further support scaling up this model across universities, including to enhance employability.

In the area of technologized pedagogy, Raicu A and Raicu G (2015, 3 citations), "Innovation in engineering education through computer assisted learning and virtual university model," promote computer-assisted learning and virtual university models, arguing for investments in digital infrastructure and compatible curricular design—implying dedicated funding for modernizing engineering education.

As an alternative funding source, Fanea-Ivanovici (2018, 2 citations), "Financing e-Learning Through Crowdfunding in Romania," maps 8 active platforms and discusses crowdfunding models (reward/donation, in the context of a legislative void for equity/debt). The conclusion emphasizes that crowdfunding can complement traditional financing for e-learning projects, especially when access to credit is limited.

At the regional level, Creţu et al. (2018, 2 citations), "Impact of Project Implementation financed under SOP HRD 2007–2013 on Development of Educational Sector in South Muntenia Region," inventory 43 calls relevant to education, with total allocations of approximately 7.02 billion lei (~€1.65 billion), integrate questionnaire-based analysis, and extract best practices for improving impact. The conclusion is that project management and administrative capacity are decisive for the effectiveness of financing.

In the sphere of university capacity building, Butum et al. (2015, 2 citations), "Development of new capacities for research and teach/learn tools in higher education, using the new financing funds in Romania," analyze financing types accessed by universities for research and teaching technologies, linking results-oriented financial management with curricular management. The conclusion highlighted by the author is that source diversification and inter-university partnerships support educational competitiveness.

In the same comparative vein, Drăgușin et al. (2015, 2 citations), “Comparative Study between the Academic Education Funding Mechanism in Romania and Spain,” provide a multi-criteria analysis of financing mechanisms, capturing convergences and specificities. The authors argue that international benchmarking can guide efficient adjustments of the Romanian model.

Completing the evolutionary picture, Drăgușin (2014, 2 citations), “Developments, Trends and Vision in Financing Public Institutions of Academic Education—The Case of Romania,” highlights the evolution and current trends in financing public higher education institutions in Romania, from the communist period to the present. The findings show that the system moved from a centralized and rigid model to a more competitive and performance-oriented one, yet persistent challenges remain regarding financing sustainability, diversification of revenue sources, and linking funding to academic performance. The author therefore argues that although important steps toward modernization have been made, Romanian higher education financing requires additional structural reforms. Long-term sustainability presupposes not only stable public funding but also the attraction of alternative resources—private partnerships, research grants, European funds, and tuition-related revenues.

In another comparison, Niculescu (2010, 2 citations), “Similarities and Differences in Financing Higher Education in Romania and United Kingdom,” examines higher education financing (teaching and research) and concludes that formula-based financing in Romania is adequate as a basic scheme, but must be combined with other mechanisms to attract both public and private resources.

From the perspective of publicly financed projects in the context of globalization, Marinescu (2010, 2 citations), “Aspects of Globalisation in Developing Human Capital through Public Financed Projects,” conducts a documentary analysis and, drawing on practical experience, shows that investments in training, exchange of experience, and know-how transfer support human capital development and convergence with European standards.

Another study by Țigu et al. (2020, 7 citations), “Education and Training Needs in the Field of Visitors Receiving Structures and Tourism Services in the Lower Danube Region,” investigates training needs in tourism for Romania and Bulgaria in the context of the EU Strategy for the Danube Region. The conclusion emphasizes that cross-border cooperation and joint training programs can improve service quality and economic performance, indicating the need to align educational financing with regional sectoral priorities.

Overall, the analysis of the most cited works on education financing in Romania indicates that financial resources represent an essential determinant of educational development, both through direct investments in infrastructure and human capital and through the integration of education into the broader logic of cohesion policies and regional development. The studies show that education cannot be treated as an isolated sector; rather, it functions as a transversal pillar of sustainable development, interconnected with economic, social, and inclusion-related domains.

A common element identified across the literature is the emphasis on non-reimbursable European funds, regarded as the primary source for modernizing the educational system. Projects financed through the European Social Fund or other European programs have targeted both vocational training and entrepreneurship education, yielding concrete outcomes in increased participation, beneficiary satisfaction, and entrepreneurial intentions. However, the literature stresses that maximum impact is achieved when interventions are designed inclusively, adapted to beneficiaries’ socio-economic profiles, and complemented by accessible financial instruments—loans, personal savings, business angels, or even crowdfunding.

At the institutional level, the works analyze both indicator-based financing mechanisms and their limitations. It has been shown that allocation formulas grounded

in quality and performance can stimulate university competitiveness, yet fine adjustments are needed to avoid imbalances among institutions. In parallel, critical studies demonstrate that, in the absence of transparent institutional design and clear monitoring mechanisms, public resources may be exposed to risks of political capture, especially in areas such as infrastructure. By contrast, pre-university education appears to benefit from stronger protection through more rigorous allocation mechanisms.

From a social perspective, research highlights the persistence of major disparities between rural and urban areas, particularly regarding access and school participation. Rural projects have improved enrollment and graduation rates, yet the literature emphasizes that intervention efficiency depends on project management quality and local administrative capacity. Moreover, decentralization has transferred financial responsibilities to local authorities, generating risks of underfunding in communities with limited resources.

In the domain of entrepreneurship education, the studies point to a growing consolidation of the link between education and the economy. Investments in entrepreneurial training, including at doctoral and postdoctoral level, increase self-efficacy, business intentions, and employability. The dominant conclusion is that entrepreneurship education financed through European projects has multiplier effects in the economic ecosystem when supported by social networks, inspirational models, and coherent educational policies.

Another important direction is digitalization. The literature highlights the role of educational technologies and e-learning as modernization solutions, particularly in the post-pandemic context. Funding directed toward digital infrastructure and online platforms contributes not only to improving education quality but also to reducing exclusion in isolated communities. Nevertheless, persistent technological gaps and the absence of clear legislation for alternative funding sources (e.g., crowdfunding for e-learning) are noted as obstacles.

Thus, a defining characteristic of education financing in Romania is its dependence on external funds and their complementarity with internal allocation mechanisms, within a framework marked by tensions between centralization and decentralization, and between equity needs and performance logic. Recent trends indicate openness toward diversifying funding sources (EU funds, loans, crowdfunding), a stronger alignment with social inclusion objectives, and a growing orientation toward digitalization and entrepreneurship. However, the literature underscores persistent structural shortcomings: chronic underfunding, low administrative capacity, and the absence of coherent impact-monitoring mechanisms. These factors mean that, despite progress, education financing in Romania remains a strategic challenge for evidence-based public policies and for sustainable development.

It should also be noted that the number of publications identified on education financing in Romania is relatively small (60), which also explains the relatively low citation levels (with an average of 2–3 citations per article). This situation indicates that the field does not yet benefit from robust and systematic scientific coverage and remains insufficiently explored in the international literature. Nevertheless, the limited scope of existing research further underscores the strategic importance of the topic, given that education financing is a critical factor for human capital development, inequality reduction, and economic competitiveness. In this context, strengthening research on this topic is necessary not only to support evidence-based policymaking but also to increase the international visibility of academic contributions from Romania.

4. Conclusions

The bibliometric analysis conducted for Romania highlights a field with limited

visibility and consistency relative to the strategic importance of education financing. The 60 identified publications point to a modest and fragmented scientific output, shaped by episodic peaks of activity in 2010, 2014, and 2015, largely driven by the launch and implementation of European operational programs. After 2017, a relative stabilization and thematic diversification can be observed, with emerging topics related to digitalization, social inclusion, and rural development. Nevertheless, the level of internationalization and citation remains low, indicating a limited integration of Romanian research into the global academic circuit.

The conceptual network shows that Romanian scholarship frames education financing primarily through a logic of structural dependence on European funds, closely linking research themes to social cohesion and regional development objectives. The focus is placed almost exclusively on higher education and the use of external resources, while essential dimensions such as pre-university education, teacher training, and the long-term sustainability of domestic financing mechanisms remain insufficiently explored. The analysis of authors and organizations further reveals a polycentric research field, lacking a consolidated core and characterized by weak collaboration, which contributes to fragmentation and limits cumulative theoretical and methodological development.

These findings must also be interpreted in light of several methodological limitations. The exclusive reliance on the Web of Science database narrows the scope of the literature under review, while the use of predominantly quantitative indicators—such as publication counts and citations—does not fully capture the practical impact of research on educational policies. In addition, terminological diversity within the field may have led to the omission of relevant studies, particularly those with primarily national visibility.

Against this backdrop, future research should aim to broaden the empirical base by incorporating complementary bibliographic sources and by developing comparative and interdisciplinary approaches. Greater attention is needed to the explicit linkage between education financing and concrete educational outcomes, as well as to issues of equity, sustainability, and the implications of digital transformation. Ultimately, the consolidation of this field depends on strengthening academic collaboration and enhancing the integration of Romanian research into international networks, so that education financing is examined not merely as an administrative mechanism but as a central driver of economic and social development.

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