Credit Dependency and Debt Management: A Bibliometric Review

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ABSTRACT

This study presents a comprehensive bibliometric analysis of scholarly literature on credit dependency and debt management, aiming to map the intellectual, thematic, and collaborative structures that define the field. Using data extracted from the Scopus database and analyzed through VOSviewer, the study identifies major research clusters including financial management, debt provision, and risk management. The findings highlight a clear evolution in research focus—shifting from individual financial behaviors and literacy toward institutional credit risk management and systemic financial governance. Co-citation and author network analyses reveal key contributors such as Lusardi, Altman, and Duffie, representing distinct but interconnected scholarly traditions. Moreover, country collaboration mapping positions the United States as the most central hub, with growing contributions from emerging economies. This study not only synthesizes the knowledge base but also reveals thematic gaps and opportunities for future interdisciplinary research. It contributes valuable insights for academics, policymakers, and practitioners seeking to understand and address the global challenges associated with credit reliance and sustainable debt management.

Keywords: Credit Dependency, Debt Management, Financial Literacy, Credit Risk, Risk Management, Bibliometric Analysis

1. INTRODUCTION

In the evolving landscape of global finance, credit plays a pivotal role in shaping both personal and institutional economic behaviors. The availability of credit facilities—from consumer loans and credit cards to corporate and sovereign debts—has provided an essential mechanism for bridging financial gaps and stimulating economic activity [1]. However, the overreliance on credit or so-called "credit dependency" has emerged as a pressing concern for economists, policymakers, and social scientists alike. This dependency is particularly problematic when credit is used to finance consumption rather than productive investments, thereby exacerbating financial vulnerabilities among individuals, households, and even governments [2]. Credit dependency is not merely a financial phenomenon but also a behavioral and structural issue that intersects with financial literacy, income inequality, and regulatory environments [3].

Debt management, in parallel, has become a core component of financial planning and economic policy. At the individual level, proper debt management influences personal financial well-being, credit scores, and long-term economic resilience [4], [5]. At the national and corporate levels, effective debt management strategies are critical to ensuring fiscal sustainability and preventing defaults. The rising concerns over debt accumulation, particularly in emerging markets and low-income households, have sparked debates over financial education, ethical lending practices, and macroprudential regulation [6]. The 2008 global financial crisis, for instance, revealed how mismanagement of credit and overleveraging can precipitate systemic risks with far-reaching social and economic impacts.

The past two decades have witnessed an explosion of research exploring credit behavior, financial literacy, debt accumulation patterns, and their consequences. Scholars have examined

credit dependency through various lenses, including behavioral economics, sociology, financial technology, and public policy. Simultaneously, debt management has gained prominence in both academic research and policy discourse, especially amid rising household debts, student loans, and national debts in post-pandemic economic recovery contexts [7], [8]. Despite the increasing number of publications in these domains, there remains a lack of synthesis regarding the intellectual structure, influential works, collaboration patterns, and thematic evolution of research in this field.

Bibliometric analysis offers a powerful methodological tool for mapping the development and intellectual landscape of scientific literature [9]. By analyzing citation data, co-authorship networks, and keyword co-occurrence, researchers can uncover the most influential authors, institutions, and research trends in a given field. In the context of credit dependency and debt management, such an approach can provide insights into the evolution of scholarship, identify knowledge gaps, and highlight emerging research fronts. Furthermore, understanding the bibliometric profile of this field can inform policymakers, educators, and practitioners about the prevailing discourse and help guide future research and policy development.

Given the multidisciplinary nature of this research area, encompassing economics, finance, psychology, and public policy, a comprehensive bibliometric review is both timely and necessary. Previous reviews have often focused narrowly on financial literacy, household debt, or credit risk management [10], [10], [11], but few have offered an integrated view of credit dependency and debt management as a connected field. This bibliometric study aims to fill that void by mapping the scientific production from major academic databases and identifying the leading contributors, dominant themes, and conceptual structures shaping the field.

Despite the increasing scholarly attention to issues of credit dependency and debt management, the literature remains fragmented, with limited understanding of how the research has evolved, who the key contributors are, and what topics dominate the discourse. There is a lack of systematic mapping that reveals the intellectual foundations, collaboration networks, and thematic patterns that define this research domain. Without such a synthesis, scholars and policymakers may struggle to contextualize new research or identify directions for impactful interventions. This study aims to conduct a bibliometric review of the scholarly literature on credit dependency and debt management using data retrieved from Scopus.

2. METHODS

This study employed a bibliometric analysis approach to map the scientific landscape of research related to credit dependency and debt management. Bibliometric analysis enables the systematic assessment of large volumes of academic literature using quantitative techniques, identifying publication trends, citation patterns, and thematic structures. The Scopus database was selected as the primary data source due to its extensive coverage of peer-reviewed journal articles, conference proceedings, and book chapters across multiple disciplines. To ensure relevance and comprehensiveness, the search string included a combination of keywords such as "credit dependency," "debt management," "consumer debt," "credit behavior," and "financial literacy," using Boolean operators and truncations. The inclusion criteria were limited to publications in English from 2000 to 2024. The final dataset was exported in CSV format, including metadata such as authorship, title, abstract, keywords, source, publication year, and citation counts.

The bibliometric analysis was conducted using VOSviewer, a specialized software tool for constructing and visualizing bibliometric networks. VOSviewer allows the creation of maps based on citation, co-citation, bibliographic coupling, co-authorship, and co-occurrence of keywords. This

study focused on several types of analysis: (1) co-authorship analysis to identify collaboration networks among researchers and institutions; (2) co-citation analysis to uncover influential studies and conceptual foundations; (3) keyword co-occurrence to identify dominant research themes and emerging trends; and (4) publication and citation trends over time to track the evolution of scholarly interest. All visualizations, including cluster maps and density plots, were generated using default normalization and layout algorithms within VOSviewer for clarity and interpretability.

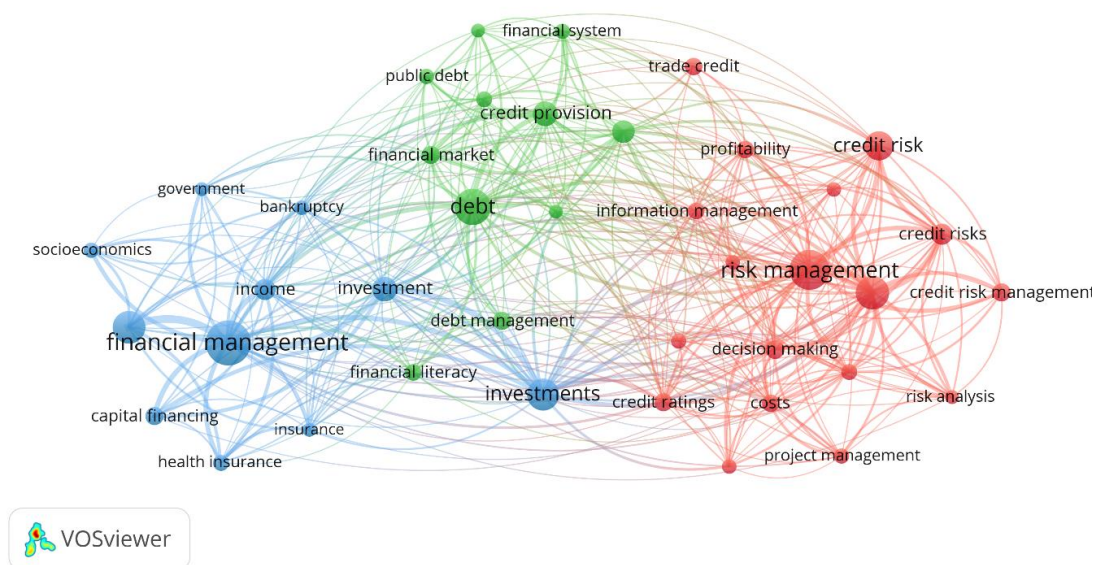## 3. RESULTS AND DISCUSSION

3.1 Network Visualization

Figure 1. Network Visualization
Source: Data Analysis Result, 2025

Figure 1 displays the thematic structure of research on credit dependency and debt management, as captured through keyword co-occurrence. The map reveals three dominant clusters, each represented by a distinct color: blue (financial management-related themes), green (debt and credit provision themes), and red (risk and credit risk management themes). These clusters are interconnected through multiple keyword linkages, indicating the multidisciplinary nature of the field and the intersection of topics such as financial literacy, investments, and credit risk.

The blue cluster, centered around the term *financial management*, encapsulates themes related to *income*, *capital financing*, *government*, *socioeconomics*, and *bankruptcy*. This cluster suggests a focus on broader macroeconomic and household-level financial issues, including budgeting, income allocation, and the socio-political implications of financial planning. The inclusion of terms like *insurance* and *health insurance* implies a growing integration between financial management and personal risk coverage, reinforcing the importance of financial resilience in debt prevention and mitigation strategies.

The green cluster, organized around the central node *debt*, includes keywords such as *credit provision*, *financial market*, *financial system*, *debt management*, and *financial literacy*. This cluster reflects discussions around how credit is accessed and utilized in economic systems, particularly the structural and educational components of managing debt effectively. Notably, *public debt* and *credit provision* suggest the involvement of both private and public institutions, highlighting the dual nature of credit sources and the relevance of fiscal governance. The presence of *investments* in this

cluster, linking also to the blue theme, underscores the dual role of credit as both a liability and a tool for growth.

The red cluster, dominated by *risk management* and *credit risk*, includes terms like *costs*, *decision making*, *project management*, and *profitability*. This cluster indicates a heavy emphasis on evaluating, mitigating, and strategically managing financial risks associated with debt. The terms reflect a managerial and institutional perspective, often applied in corporate finance and banking contexts where credit risk assessment and credit ratings are central. The proximity of *risk analysis* and *credit risk management* reinforces the operational dimension of debt and credit oversight, bridging academic theory with applied financial risk tools.
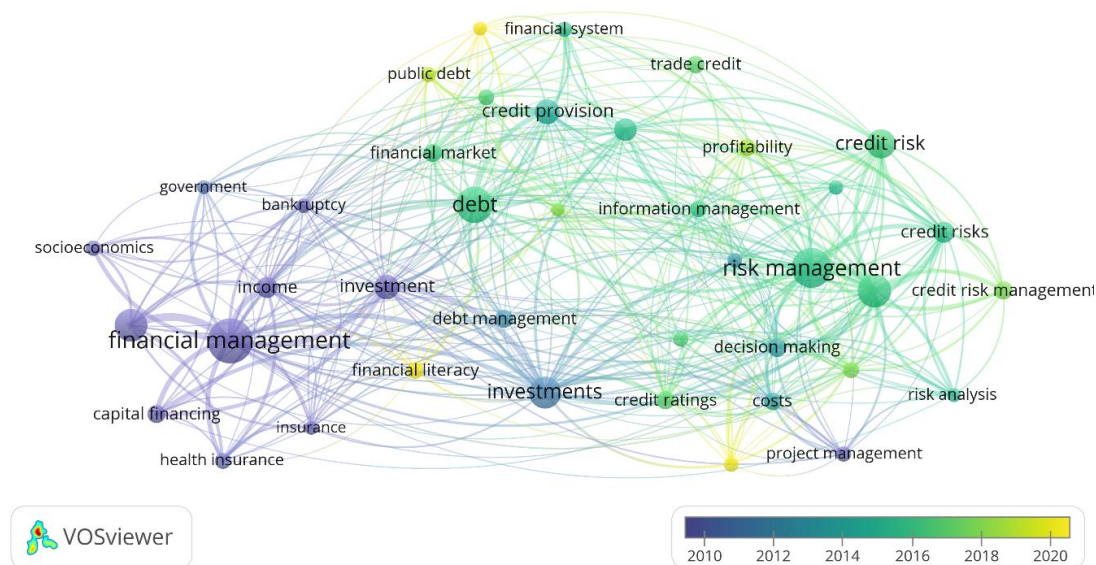
3.2 Overlay Visualization

Figure 2. Overlay Visualization
Source: Data Analysis Result, 2025

The overlay visualization map generated by VOSviewer reveals the temporal evolution of keywords associated with research on credit dependency and debt management. The color gradient from purple (older publications, circa 2010) to yellow (more recent publications, circa 2020) enables us to see which themes have been more historically dominant and which have gained recent scholarly attention. Notably, older themes are concentrated in the left side of the map, around keywords such as financial management, income, bankruptcy, and capital financing. This suggests that early studies in the field primarily focused on foundational aspects of personal and institutional financial behavior.

Moving toward the center and right portions of the map, we observe a transition to keywords in green and yellow shades—indicating mid- to recent-year research attention—such as *risk management*, *credit risk*, *information management*, *credit provision*, and *profitability*. These keywords represent an increasing focus on systemic and operational risk concerns, perhaps influenced by the 2008 financial crisis and its aftermath. The growing interest in *credit risk management* and *decision making* reflects a shift toward institutional strategies to mitigate credit exposure and enhance financial decision-making, aligning with the rise of data-driven financial analytics and regulatory developments in banking sectors.

Interestingly, the keywords highlighted in bright yellow, such as *financial system*, *project management*, and *trade credit*, represent emerging areas of research that have garnered attention

particularly in the post-2018 period. These newer directions suggest a broadening of the field to include more complex, systemic dimensions of credit and debt, involving project-based financing and inter-organizational credit mechanisms. The presence of *financial literacy* also appearing in a lighter color indicates that although it has long been discussed, its prominence continues to rise in recent research—likely due to the increasing emphasis on preventive strategies in debt management and the promotion of responsible credit behavior.

3.3 Citation Analysis

Table 1. The Most Impactful Literatures

Citations	Authors and year	Title
786	[12]	Systemic risk in financial systems
681	[13]	Corporate immunity to the COVID-19 pandemic
348	[14]	Knowledge spillover in corporate financing networks: Embeddedness and the firm's debt performance
346	[15]	Banking-industry specific and regional economic determinants of non-performing loans: Evidence from US states
304	[16]	Friends with money
251	[17]	Consumer-based brand equity and firm risk
250	[18]	Problems Paying Out-of-Pocket Medication Costs among Older Adults with Diabetes
248	[19]	Determinants of default in P2P lending
236	[20]	Credit risk: Pricing, measurement, and management
236	[21]	Extinction debt and species credit in boreal forests: Modelling the consequences of different approaches to biodiversity conservation

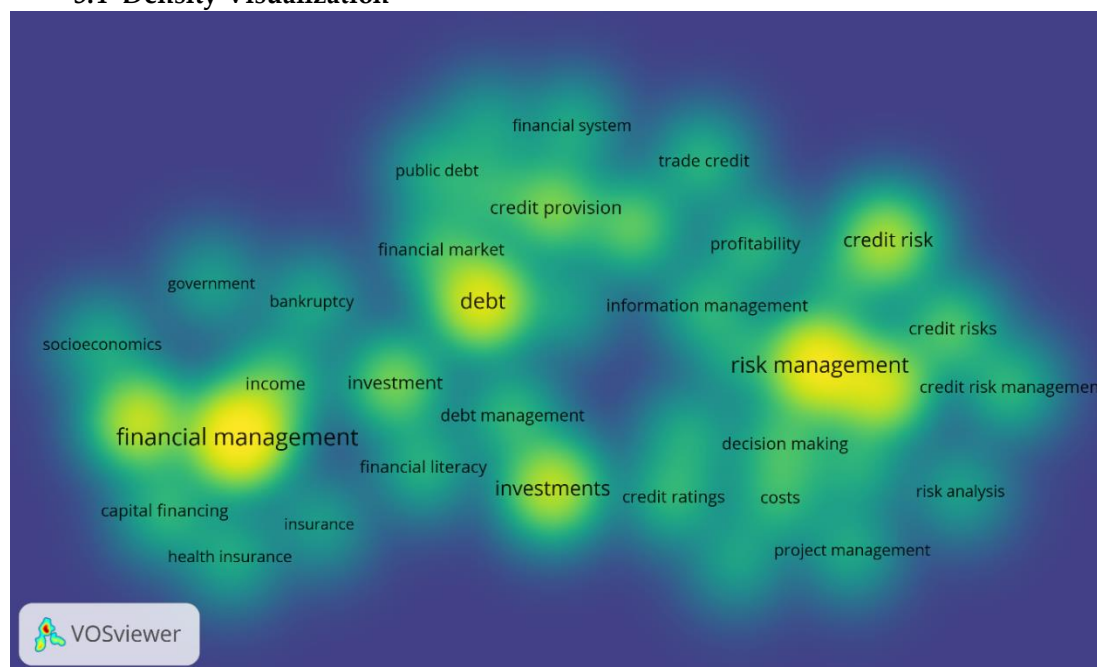*Source: Scopus, 2025*

3.4 Density Visualization

Figure 3. Density Visualization
Source: Data Analysis Result, 2025

The heatmap visualization from VOSviewer highlights the density and intensity of research focus on keywords associated with credit dependency and debt management. Brighter areas indicate higher frequency and stronger linkages between terms within the literature, while darker regions represent less concentrated research activity. The brightest zones are centered on financial management, debt, risk management, and credit risk, indicating these are the most extensively studied and interconnected concepts in the field. These hotspots suggest a predominant focus on both individual and institutional responses to debt and credit challenges, spanning from budgeting and financial planning to risk mitigation strategies.

In contrast, keywords such as health insurance, socioeconomics, project management, and risk analysis are located in cooler, less illuminated areas of the map, implying that while present, these topics are relatively underrepresented or specialized. The moderately lit terms such as financial literacy, credit provision, investments, and information management serve as bridges between high-density zones, reflecting their supportive role in the broader research ecosystem.
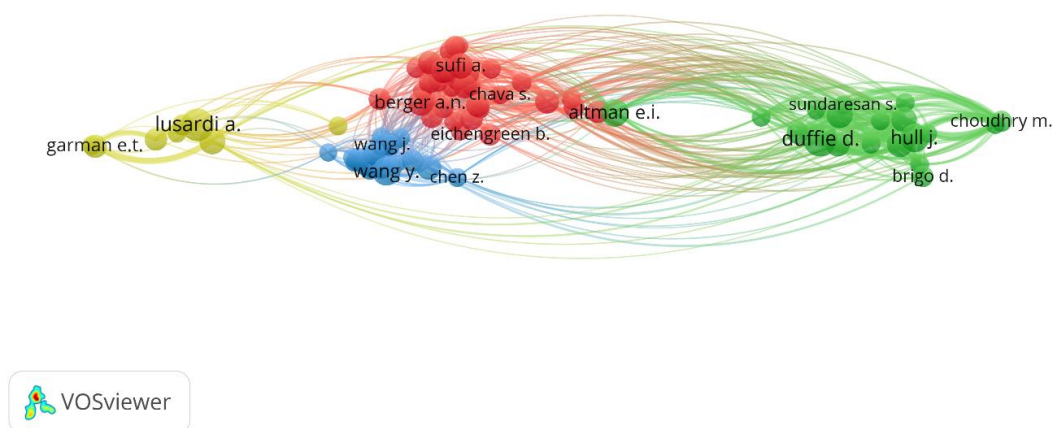
3.5 Co-Authorship Network

Figure 4. Author Visualization
Source: Data Analysis Result, 2025

The VOSviewer co-citation network map visualizes the most influential authors in the field of credit dependency and debt management, clustered based on the frequency with which they are cited together. The map reveals three prominent clusters: the green cluster on the right dominated by authors like Duffie D., Hull J., and Choudhry M., focusing on credit risk modeling and financial derivatives; the red cluster in the center with Altman E.I., Sufi A., and Chava S., representing research on credit scoring, bankruptcy prediction, and empirical banking analysis; and the yellow cluster on the left led by Lusardi A. and Garman E.T., emphasizing personal finance, financial literacy, and behavioral economics. The strong linkages between clusters indicate an interdisciplinary integration of micro-level behavioral insights and macro-level risk management frameworks.
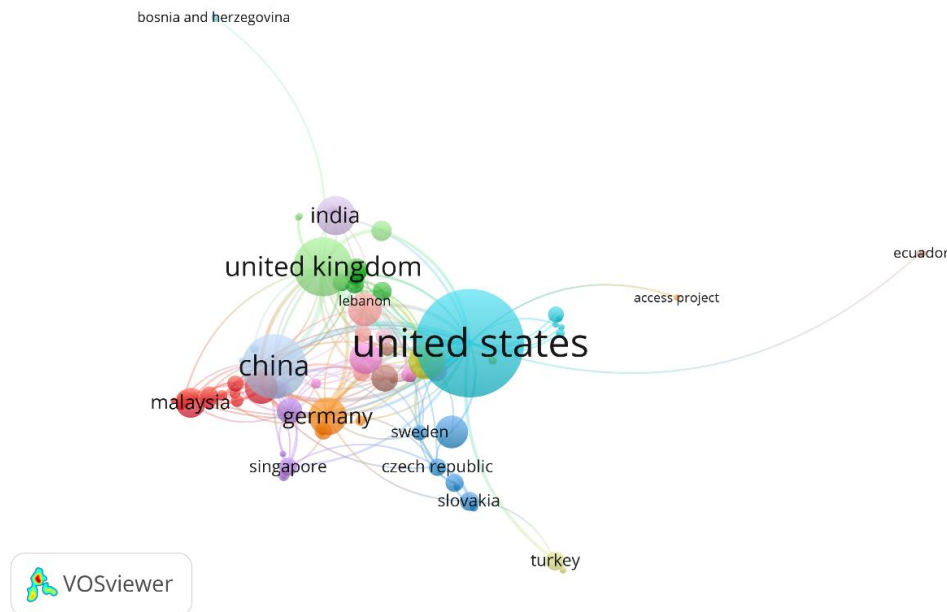
Figure 5. Country Visualization
Source: Data Analysis Result, 2025

The country collaboration network map visualized through VOSviewer highlights the global distribution and partnerships in research on credit dependency and debt management. The United States dominates the map as the most prolific and central contributor, evidenced by its large node and extensive collaboration links, particularly with the United Kingdom, China, Germany, and India. These strong connections suggest that the U.S. plays a central role in international research output and co-authorship, often serving as a hub for collaborative studies. European countries such as Germany, Sweden, Czech Republic, and Slovakia form a dense regional cluster, indicating active intra-European research cooperation. Meanwhile, countries like Ecuador, Bosnia and Herzegovina, and Turkey appear more isolated, with fewer connections, signaling emerging or peripheral contributions to the field.

Discussion

1. **Thematic Structure and Interconnected Domains**

The network visualization based on keyword co-occurrence (Figure 1) identifies three dominant thematic clusters. The first cluster, centered around financial management, includes related concepts such as *income*, *capital financing*, *bankruptcy*, and *insurance*. This indicates a long-standing interest in the micro-level aspects of financial behavior, particularly in understanding how individuals and households manage income, debt obligations, and financial protection mechanisms. Financial management emerges as a foundational lens through which researchers have analyzed credit dependency, especially in relation to budgeting and expenditure patterns that may lead to over-indebtedness [2].

The second cluster is focused on debt and credit provision, incorporating terms like *public debt*, *financial system*, *debt management*, *financial literacy*, and *investments*. This theme reflects a growing emphasis on both the structural and behavioral elements of debt accumulation and repayment. The prominence of *financial literacy* signals an increasing awareness among scholars that knowledge and skills are critical in mitigating credit misuse and promoting sound debt practices [22]. Furthermore, the presence of *credit provision* and *financial market* underscores the role of institutional frameworks and financial accessibility in shaping credit behaviors at both household and systemic levels.

The third and perhaps most complex cluster involves **risk management** and *credit risk*, along with related terms such as *risk analysis*, *credit ratings*, *costs*, and *decision making*. This indicates a parallel stream of research that takes a more institutional and quantitative approach, especially in the context of banking, credit scoring, and regulatory compliance. Scholars in this domain are concerned with identifying, measuring, and mitigating the risks associated with lending and borrowing activities. The strong links between *project management* and *credit risk management* also suggest a convergence between debt studies and project finance, particularly in the corporate and sovereign contexts.

2. Intellectual Foundations and Author Networks

The co-citation analysis (Figure 4) reveals the intellectual structure underlying the field, grouping influential authors into thematic clusters. Researchers such as Annamaria Lusardi and E.T. Garman dominate the financial literacy and household finance domain, establishing the behavioral and educational underpinnings of credit dependency. Their work has been instrumental in framing financial capability as a preventive tool against over-indebtedness [23]. In contrast, Edward Altman and Amir Sufi appear as central figures in the empirical study of corporate credit risk and bankruptcy prediction, representing the quantitative and risk-oriented perspective of debt research.

The green cluster, featuring authors like Darrell Duffie, John Hull, and Moorad Choudhry, reflects expertise in derivatives, credit risk modeling, and structured finance. These scholars have contributed to the more technical aspects of risk management and financial engineering, providing models that financial institutions use to evaluate and price credit risk. The presence of Barry Eichengreen and other macro-finance economists in the red cluster shows the integration of historical and policy-focused approaches, linking credit dependency with systemic crises and regulatory responses. The author clusters emphasize that the field is **multidisciplinary**, drawing on economics, finance, psychology, and policy studies.

3. Temporal Evolution and Emerging Themes

The overlay visualization (Figure 2) offers insight into the **temporal dynamics** of the field. Earlier research (indicated in blue and purple) concentrated on *financial management*, *income*, and *bankruptcy*, which aligns with post-financial-crisis discussions that highlighted household debt and budgetary constraints. These foundational themes have provided the analytical basis for exploring debt-related vulnerability and financial distress. The emphasis during this period was largely diagnostic, focusing on what drives over-indebtedness and financial exclusion.

As the field matured, attention shifted toward *risk management*, *credit risk*, and *decision making*, which appear in green and yellow hues—indicating more recent scholarly engagement. This transition reflects a growing interest in applying data analytics, credit scoring models, and decision sciences to anticipate and mitigate the risks associated with lending. The emergence of terms like *information management* and *profitability* also suggests a stronger alignment with business and institutional perspectives, where credit is treated as an asset or liability with direct financial implications.

More recent years (2018 onward) have seen increased interest in systemic and governance-oriented topics such as *financial system*, *public debt*, and *project management*. This shift likely reflects growing concerns over sovereign debt, infrastructure financing, and the long-term sustainability of credit-based economic models. It also implies a reorientation toward strategic and macro-level debt concerns, driven by global events such as the COVID-19 pandemic and rising inflationary pressures, which have intensified debt burdens worldwide.

4. Global Distribution and Research Collaboration

The country collaboration map (Figure 5) illustrates a globally interconnected research community, with the United States as the most prolific and central contributor. Its extensive

connections with the United Kingdom, China, Germany, and India highlight the transcontinental nature of debt and credit research. The dominance of Western economies in both volume and network centrality underscores their role as hubs of knowledge production and academic leadership in this domain. However, the growing presence of countries like Malaysia, Singapore, and Turkey suggests an expanding geographical interest and the emergence of new regional perspectives.

Notably, some countries such as Ecuador and Bosnia and Herzegovina appear as peripheral nodes, indicating limited integration into mainstream academic networks. These countries may represent context-specific case studies or localized interventions that have not yet achieved global impact. Nevertheless, their presence on the map reflects a widening interest in credit and debt issues, particularly in low- and middle-income settings where financial vulnerability is high. The findings suggest an opportunity to enhance international collaboration, particularly through North–South and South–South partnerships, to address context-sensitive challenges in credit behavior and debt management.

5. Implications for Research and Practice

The results of this bibliometric review have several implications. First, the field's multidisciplinary nature calls for integrative research frameworks that connect behavioral, structural, and technological dimensions of credit use. Scholars should consider bridging gaps between household financial behavior and institutional credit practices to produce more comprehensive insights. Second, the rise of themes like financial literacy and credit risk modeling suggests the need for policy-relevant research that informs financial education programs and regulatory strategies. Understanding how individuals make credit decisions and how institutions manage lending risk can support more inclusive and sustainable financial systems.

Third, the increasing complexity of debt instruments and credit markets highlights the importance of data analytics and financial technology (FinTech) in future research. Tools such as machine learning, big data analysis, and behavioral modeling could be leveraged to improve credit assessment and personalize debt management solutions. Finally, the bibliometric evidence suggests that emerging economies and underrepresented regions warrant more attention in global research agendas. Comparative studies that include diverse institutional and cultural settings could enhance the generalizability of findings and inform more equitable debt policies.

CONCLUSION

This bibliometric review has provided a comprehensive overview of the scholarly landscape on credit dependency and debt management, revealing key thematic clusters, influential authors, emerging trends, and international collaborations. The findings show that the field is highly interdisciplinary, integrating insights from financial literacy, credit risk, and macroeconomic management. Over time, research has evolved from focusing on household-level financial behaviors to more complex institutional and systemic concerns, including credit risk modeling and financial governance. The United States, United Kingdom, and China lead in research output and collaboration, while newer contributions are emerging from diverse regions. This study underscores the importance of continued, integrative, and globally inclusive research to address the multifaceted challenges of credit and debt in an increasingly complex financial world.

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