

# Idiosyncratic Risk in Corporate Finance: A Global Research Landscape

Indra Halim<sup>1</sup>, Yana Priyana<sup>2</sup>, Muhamad Ammar Muhtadi<sup>3</sup>, Muhammad Fithrayudi Triatmaja<sup>4</sup>,  
Ferlinda Ainur Rachmani<sup>5</sup>

<sup>1</sup> Universitas Kristen Indonesia

<sup>2</sup> Universitas Nusa Putra

<sup>3</sup> Universitas Nusa Putra

<sup>4</sup> Universitas Muhammadiyah Pekajangan Pekalongan

<sup>5</sup> Universitas Muhammadiyah Pekajangan Pekalongan

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## ABSTRAK

Penelitian ini bertujuan untuk memetakan dan menganalisis lanskap penelitian global mengenai idiosyncratic risk dalam bidang keuangan perusahaan menggunakan pendekatan bibliometrik. Data penelitian diperoleh dari basis data Scopus dan dianalisis menggunakan perangkat lunak VOSviewer untuk mengidentifikasi tren publikasi, pola kolaborasi penulis, kolaborasi antarinstansi, kontribusi masing-masing negara, serta struktur ko-kemunculan kata kunci. Hasil penelitian menunjukkan bahwa kajian mengenai idiosyncratic risk terkonsentrasi pada struktur intelektual utama yang didominasi oleh topik keuangan perusahaan, penetapan harga aset (asset pricing), dan teori pasar keuangan. Analisis kolaborasi penulis dan institusi mengungkapkan dominasi yang signifikan dari penulis dan universitas yang berbasis di Amerika Serikat, sementara kontribusi yang terus meningkat dari negara-negara seperti Tiongkok, Jerman, dan India menunjukkan semakin luasnya partisipasi global dalam bidang ini. Analisis kata kunci menunjukkan bahwa penelitian telah berkembang dari kajian dasar mengenai volatilitas dan efisiensi pasar menuju tema-tema yang lebih interdisipliner, seperti keuangan perilaku (behavioral finance), tata kelola perusahaan (corporate governance), dan kebijakan makroekonomi. Penelitian ini menyimpulkan bahwa kajian mengenai idiosyncratic risk telah berkembang menjadi bidang penelitian yang matang dan terus berkembang dengan mengintegrasikan berbagai dimensi ekonomi keuangan dan pengambilan keputusan perusahaan.

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## ABSTRACT

This study aims to map and analyze the global research landscape of idiosyncratic risk in corporate finance using a bibliometric approach. Data were retrieved from the Scopus database and analyzed using VOSviewer software to examine publication trends, co-authorship patterns, institutional collaborations, country contributions, and keyword co-occurrence structures. The findings indicate that research on idiosyncratic risk is highly concentrated within a core intellectual structure dominated by corporate finance, asset pricing, and financial market theories. Co-authorship and institutional analyses reveal a significant dominance of U.S.-based authors and universities, while emerging contributions from countries such as China, Germany, and India highlight increasing global participation. Keyword analysis shows that the field has evolved from foundational studies on volatility

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and market efficiency toward more interdisciplinary themes, including behavioral finance, corporate governance, and macroeconomic policy. The study concludes that idiosyncratic risk research has developed into a mature and expanding field that integrates multiple dimensions of financial economics and corporate decision-making.

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**Corresponding Author:**

Name: Indra Halim

Institution: Universitas Kristen Indonesia

Email: [indra.halim@uki.ac.id](mailto:indra.halim@uki.ac.id)

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## 1. INTRODUCTION

Investigations in corporate finance have been focused on the study of the impact of risk on company value, the decision-making process, and efficient allocation of capital for a long time. In this context, risk is usually split into systematic and idiosyncratic risks (Kumar & Singh, 2022). Systematic risk is caused by factors in macroeconomics, and it is undiversifiable, whereas idiosyncratic risk is associated with volatility in operations, finance, and management of companies. Even though according to conventional theories of asset pricing, idiosyncratic risk is not significant in a diversified portfolio, modern empirical studies indicate that its importance is much higher than it was previously thought to explain return cross sections and corporate behavior (Szczepeńska-Przekota, 2025; Uritskaya, 2005). As global financial markets grow more sophisticated, the study of idiosyncratic risk in the context of corporate finance becomes extremely important.

It is evident that the academic basis of risk decomposition in corporate finance is rooted in the concepts of modern portfolio theory and equilibrium asset pricing theories. Further development of the Capital Asset Pricing Model (CAPM) suggests that only systematic risk is priced in equilibrium, whereas idiosyncratic risk should be diversified to the extent that it is not priced in any form (Gatfaoui, 2010; Srinivas et al., 2009). Nonetheless, further modifications of asset pricing theories have questioned this assertion, especially when dealing with frictional markets where there exist information asymmetries and biases.

Idiosyncratic risks have received attention in empirical studies that have made the classical conception more complex. One of the major works done in this area was that of (Jones et al., 2023; Paccas, 2024; Pringpong et al., 2023) who established that stocks with high idiosyncratic volatility generate lower returns in the future – something opposite to what should have been expected from asset pricing. The above is known as the “idiosyncratic volatility puzzle,” which has received a lot of academic discussion and has given rise to many studies looking at its stability in different settings, including countries, time, and types of assets. According to (Hori & Im, 2023), there have been views associating the anomaly with lottery preferences of investors as well as limits to arbitrage.

When it comes to corporate finance, there are many aspects in which the issue of idiosyncratic risk is vital for understanding the behavior of organizations, such as investing, financing, and estimating the cost of capital. Companies with higher idiosyncratic risk are usually faced with the need to overcome additional financing problems, incur higher cost of financing through external sources and have more volatile cash flows. In addition, idiosyncratic risk and high volatility can be related to managerial behavior in the face of uncertainty, in which case executives of such companies use the risk reducing or speculative strategy of investment, which depends on corporate governance and incentive schemes. At the same time, empirical evidence has shown that companies with higher idiosyncratic risk usually have high volatility of stocks, less analyst coverage,

less institutional ownership, and hence higher information asymmetry in capital markets (Azevedo et al., 2023; Grobys, 2024; Vo, 2024).

However, although there are many studies that have been written on this topic, idiosyncratic risks still have some scattered information due to the numerous subdisciplines involved such as asset pricing, behavioral finance, corporate governance, and international finance. The explosion in the number of publications in various journals and disciplines has made it hard to acquire a clear picture of the research environment around the globe. There is little systematic documentation on the way intellectual structures, leading authors, thematic groups, and geographical contributions have changed over time. Bibliometrics can be an effective methodological tool for dealing with this problem because it involves the quantitative analysis of publication patterns, citation networks, and research trends. According to (Donthu et al., 2021), bibliometric approaches help researchers to analyze vast amounts of literature and reveal emerging research frontiers systematically. Likewise, (Van Eck & Waltman, 2010) point out that bibliometric analysis is especially useful in developed and fast-growing scientific fields.

Despite numerous studies in the literature analyzing idiosyncratic risk from a theoretical as well as empirical perspective, there remains an inadequate number of comprehensive bibliometric studies that help understand the global intellectual structure of the issue in the field of corporate finance. Previous bibliographic reviews usually concentrate only on specific aspects of the issue such as volatility anomaly or asset pricing, ignoring overall trends in research in this area in different scientific fields and across various nations. Hence, researchers and practitioners fail to get an overall picture of how idiosyncratic risk research has developed, what themes prevail in this field of study, and in what directions future research can move. This gap hinders the process of cumulative knowledge-building in the field and impairs identification of trends and gaps in the academic discussion. This research is intended to analyze the global scientific landscape of idiosyncratic risk in corporate finance through the bibliometric approach.

## 2. METHOD

This research uses a bibliometric research methodology to map and examine the scientific body of literature regarding idiosyncratic risks in corporate finance. Bibliometric research methodology is used because of the ability of bibliometrics to quantify scholarly articles in large numbers and discover structural knowledge patterns such as citation links, collaboration networks, and keywords. The source of data for this research is the Scopus database, which is one of the most reputable databases for scholarly indexed journals on topics related to finance, economics, and business studies. This database was chosen because of the wide coverage of scholarly journals and the suitability for longitudinal bibliometric mapping.

The process of data gathering was done in a systematic approach involving keyword searches. The main search strings included terms like “idiosyncratic risk,” “firm-specific risk,” “idiosyncratic volatility,” and “corporate finance.” The search included only journal articles and review articles to ensure academic quality of research. At first, no limitation was put on the year of publication, since the aim was to include all aspects of the development of the phenomenon throughout the years; however, irrelevant subjects in other than business, economics and finance fields were excluded in refining the data set. The final dataset was downloaded from Scopus in BibTeX and CSV formats along with the authors’ information, references, and citations.

The analysis was carried out using VOSviewer software which is developed particularly for bibliometric network building and visualization purposes. VOSviewer was applied to carry out analysis of co-authorships, co-citations, bibliographic couplings and keyword co-occurrences in order to reveal the structure and development of the field under study. Visualization functions provided by the software allowed revealing research clusters, key authors, dominating journals and topical areas associated with idiosyncratic risk in corporate finance. The network maps were built using fractional counting and association strength normalization to make sure of the accuracy of relationships representation among bibliographic items.

### 3. RESULT AND DISCUSSION

#### 3.1 Results

##### a. Co-Authorship Analysis

The following figure presents a VOSviewer co-authorship network visualization illustrating the collaborative structure among leading authors in the global research field of idiosyncratic risk in corporate finance.

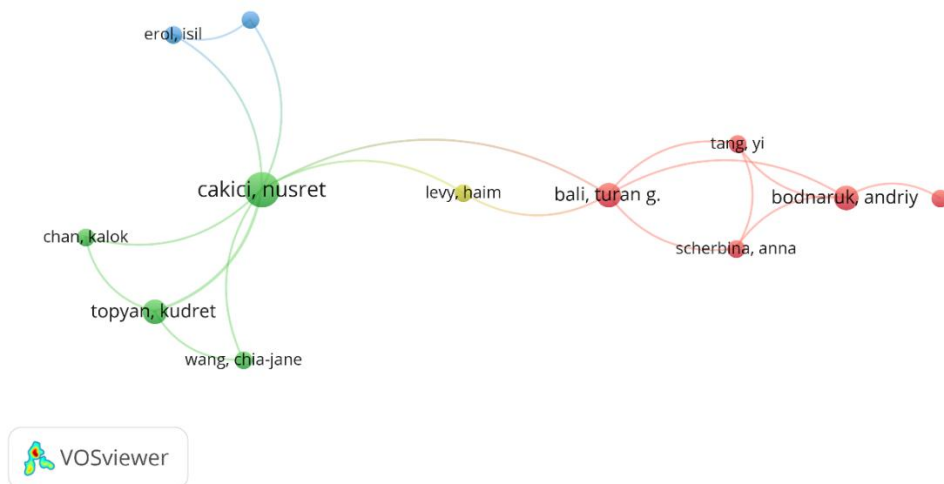


Figure 1. Author Visualization  
Source: Data Analysis, 2026

The network map demonstrates the emergence of different clusters of collaborations among scholars, which implies that there are several groups of researchers whose work is interconnected; however, they can be considered rather fragmented and segmented communities of research. The first green cluster is led by Nusret Cakici, who is identified as an important node, connected to other scholars, including Kudret Topyan, Chia-Jane Wang, and Kalok Chan, which means that this group includes people involved in collaboration activities, forming a fairly tight-knit community. Another highly active community is marked with red color and includes Turan G. Bali, Andriy Bodnaruk, Anna Scherbina, and Yi Tang, who are known for their empirical research into asset pricing and idiosyncratic volatility. The link between Levy Naim (yellow node) and both clusters suggests that he acts as a bridge between two separate intellectual communities.

The following figure illustrates a VOSviewer network of institutional co-authorship relations in the field of idiosyncratic risk in corporate finance, highlighting collaboration patterns among leading universities and research institutions.

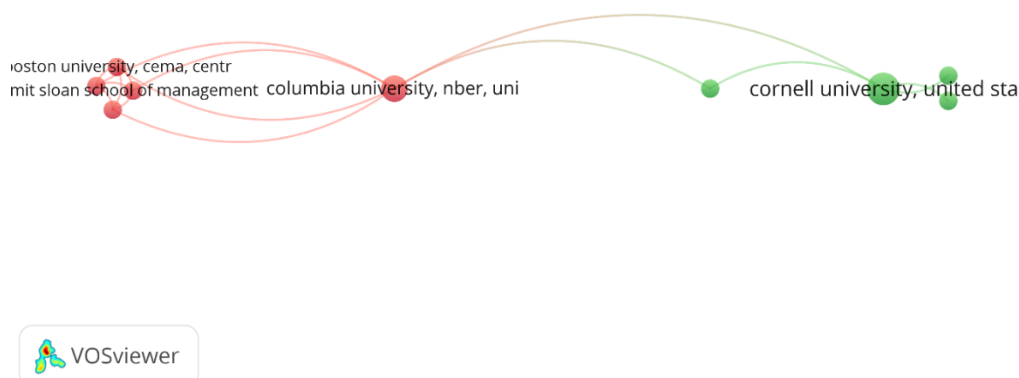


Figure 2. Institution Visualization  
Source: Data Analysis, 2026

The network shows the presence of a relatively concentrated but distinctively bifurcated structure of institutional collaborations. First, a dense red cluster on the left hand side of the graph is made up of institutions such as Boston University, MIT Sloan School of Management, and Columbia University, among others including NBER, showing the presence of an academic hub within the United States engaged in high-level internal collaboration. They act as a central production node in empirical and theoretical innovations in the area of idiosyncratic risks and asset pricing research. On the other hand, the green cluster on the right-hand side of the graph is mostly composed of Cornell University, which seems somewhat isolated from the rest of the network but still collaborates to some extent with the rest of the network, making it an isolated participant within the field of research.

The following figure presents a VOSviewer country co-authorship network illustrating international collaboration patterns in research on idiosyncratic risk in corporate finance.

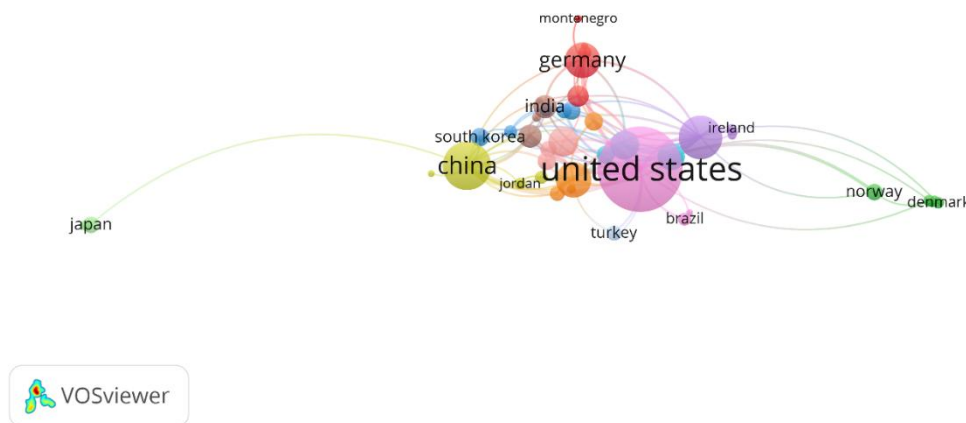


Figure 3. Country Visualization  
Source: Data Analysis, 2026

From the visualization, it can be seen that the United States holds the central place in the global network of research with regards to the idiosyncratic risk studies because of the largest size of the node as well as strong connections with various countries. Such centrality is justified by the fact that the United States remains one of the major producers of knowledge in the field of idiosyncratic risks and one of the centers of knowledge dissemination, as the country is actively cooperating with many different countries including not only developed but also developing ones. Active cooperation with such countries as Germany, China, India, Brazil, Ireland, Turkey, and South Korea proves that the field remains very international but structurally is linked to the American research institutions. When speaking about the secondary contributors, it can be said that there are two regional hubs – Germany and China. In particular, Germany demonstrates strong clustering with the countries from Europe, which means that Germany participates actively in continental research networks, whereas China demonstrates integration in global financial research, including cooperation with the United States and East Asian countries such as South Korea and Japan.

**b. Citation Analysis**

The following table presents the most cited articles in the global literature on idiosyncratic risk and related financial and interdisciplinary research domains.

Table 1. Most Cited Article

Citations	Author and Year	Title	Publication
2544	(Ang et al., 2006)	The cross-section of volatility and expected returns	Journal of Finance

Citations	Author and Year	Title	Publication
1771	(Steinmann et al., 2006)	Schistosomiasis and water resources development: systematic review, meta-analysis, and estimates of people at risk	Lancet Infectious Diseases
1318	(Campbell et al., 2001)	Have individual stocks become more volatile? An empirical exploration of idiosyncratic risk	Journal of Finance
1285	(Fang & Peress, 2009)	Media coverage and the cross-section of stock returns	Journal of Finance
1198	(Aiyagari, 1994)	Uninsured idiosyncratic risk and aggregate saving	Quarterly Journal of Economics
1022	(Bali et al., 2011)	Maxing out: Stocks as lotteries and the cross-section of expected returns	Journal of Financial Economics
950	(Krusell & Smith Jr., 1998)	Income and wealth heterogeneity in the macroeconomy	Journal of Political Economy

Source: Scopus, 2026

The citation landscape is highly concentrated around a small number of influential works, with (Ang et al., 2006) standing out as the most central contribution in the field of idiosyncratic volatility and expected returns, reflecting its foundational role in establishing the empirical “idiosyncratic volatility puzzle.” Closely related contributions by (Campbell et al., 2001) further reinforce the importance of firm-specific volatility in explaining time-series and cross-sectional variations in stock returns, positioning idiosyncratic risk as a critical construct in modern asset pricing literature. Similarly, (Bali et al., 2011) extend this line of inquiry by linking idiosyncratic risk to lottery-like stock behavior, reinforcing behavioral explanations for return anomalies. Beyond core financial economics, the table also includes highly cited interdisciplinary works such as (Aiyagari, 1994), which provides a macroeconomic foundation for understanding uninsured idiosyncratic risk and its implications for aggregate savings behavior, demonstrating the theoretical breadth of the concept across economics. Other highly cited works, including (Fang & Peress, 2009), highlight the role of information asymmetry—particularly media coverage—in shaping cross-sectional stock returns, further integrating idiosyncratic risk into information-based asset pricing frameworks. The presence of medical and epidemiological studies among the top citations reflects database-level cross-disciplinary citation aggregation rather than thematic focus, indicating the importance of careful dataset refinement in bibliometric studies.

#### c. **Keyword Co-Occurrence Analysis**

The following figure presents a VOSviewer keyword co-occurrence network illustrating the thematic structure and intellectual relationships in the global literature on idiosyncratic risk in corporate finance.

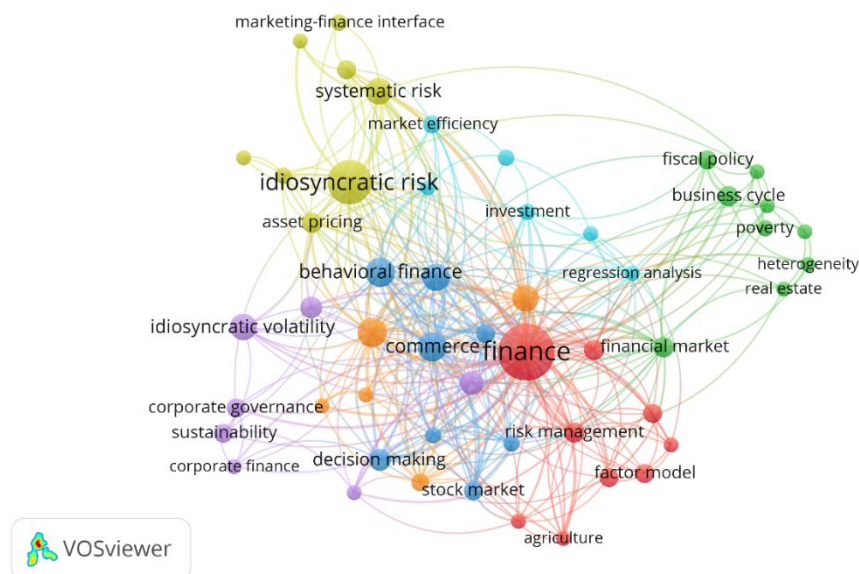


Figure 4. Network Visualization  
Source: Data Analysis, 2026

As shown in the network, commerce finance can be seen as the dominating central node, which reflects the significance of the concept as the key point of integration across many thematic streams in the literature. The high connectivity of the node means that the studies on the concept of idiosyncratic risk are not limited to any particular substream but are located in a wider stream of corporate finance and financial markets. Another cluster stands out based on constructs such as idiosyncratic risk, systemic risk, market efficiency, and asset pricing. This is because of the underlying theoretical framework on which the field is based, and which stems from modern asset pricing theory. The closeness of the terms is an indication of the many times idiosyncratic risk is analyzed empirically as part of price anomalies and efficiency tests within markets.

The other important theme cluster is composed of behavioral finance, investment, decision-making, and stock market. Such a cluster demonstrates the increasing behavioral component of idiosyncratic risk studies in which the role of psychological factors of investors, their cognitive biases, and bounded rationality in explaining volatility and return anomalies is considered. The relationship between behavioral finance and investment-oriented themes indicates that firm-specific risk is understood not only in rational terms but also from behavioral ones. On the macro-economic front, there is another cluster containing fiscal policy, business cycle, poverty, heterogeneity, and real estate that speaks of the increasing scope of the idiosyncratic risk study into the macro-economic and policy framework. This suggests that researchers are now considering the issue of corporate risk with regard to macro-economic fluctuations and structure. The inclusion of these words suggests the widening scope of interdisciplinary research.

One interesting but relatively peripheral cluster contains corporate governance, sustainability, and corporate finance, representing a possible emerging research line devoted to investigating the institutional and governance-related factors underlying idiosyncratic risk. The fact that the above-mentioned topics are located on the periphery of the network implies that although the research line is emerging, it becomes more and more relevant for understanding the ways in which organization structure and sustainability impact firm-specific risk. The network presents a very connected but thematically varied picture of the research domain with corporate finance as the key integrative concept.

The following figure shows an overlay of keywords used in studying idiosyncratic risks in corporate finance using the VOSviewer software, wherein the nodes are colored according to the temporal changes in themes starting from older years (blue, ~2012) to newer ones (yellow, ~2020).

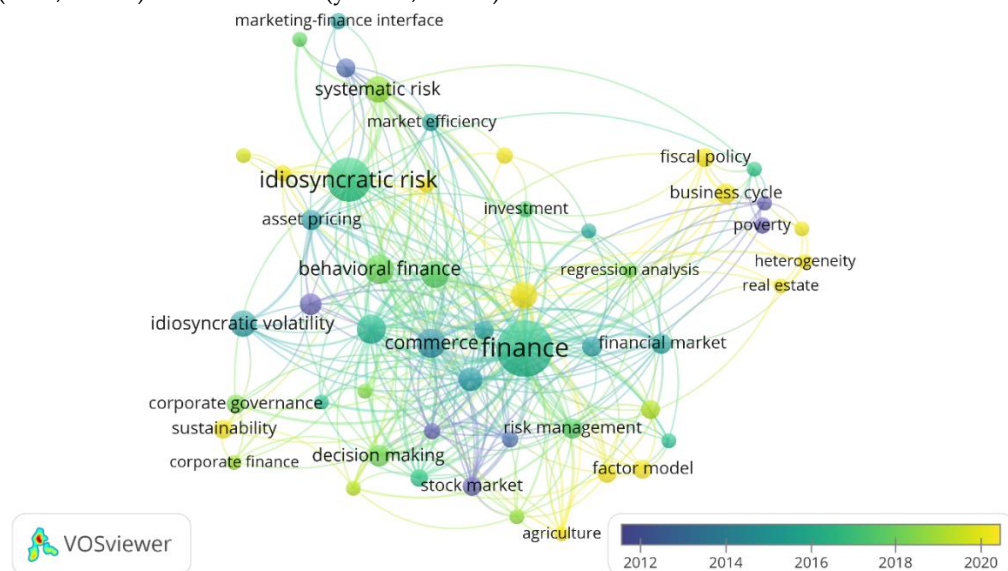


Figure 5. Overlay Visualization

Source: Data Analysis, 2026

As can be observed from the distribution along the time axis, early studies (blue portion) are centered on fundamental concepts like idiosyncratic volatility, stock market, behavioral finance, and decision-making processes. These topics capture the nature of the early stages of the literature, which mainly revolved around the study of the empirical features of idiosyncratic risk and its effects on market behavior and psychological factors among investors. At that stage, the literature was heavily based on asset pricing anomalies and behavioral aspects of return fluctuations, especially in stock markets. For the mid-stage of development (clusters in green and light green), the research agenda begins to shift towards topics with increased structure regarding finances and institutions like commerce finance, risk management, financial markets, corporate governance, and systematic risk.

It is an indication of how the maturity of the discipline led to the inclusion of idiosyncratic risk within corporate finance theories and risk management discussions. The relevance of commerce finance at this stage is also an indicator of how corporate finance has become the major multidisciplinary umbrella for research streams. The recent developments (yellow box, ~2018-2020) are characterized by a clear change of themes towards macro-financial and policy-related areas like fiscal policy, business cycle, heterogeneity, real estate, and investments. The presence of idiosyncratic risk as an important topic for every period considered shows its importance throughout, whereas the inclusion of macroeconomic and structural variables highlights the widening of the scope of investigation to areas outside firms.

The following figure presents a VOSviewer density visualization (heatmap) of keyword co-occurrence in the global research landscape of idiosyncratic risk in corporate finance, where brighter regions indicate higher term density and stronger conceptual concentration.

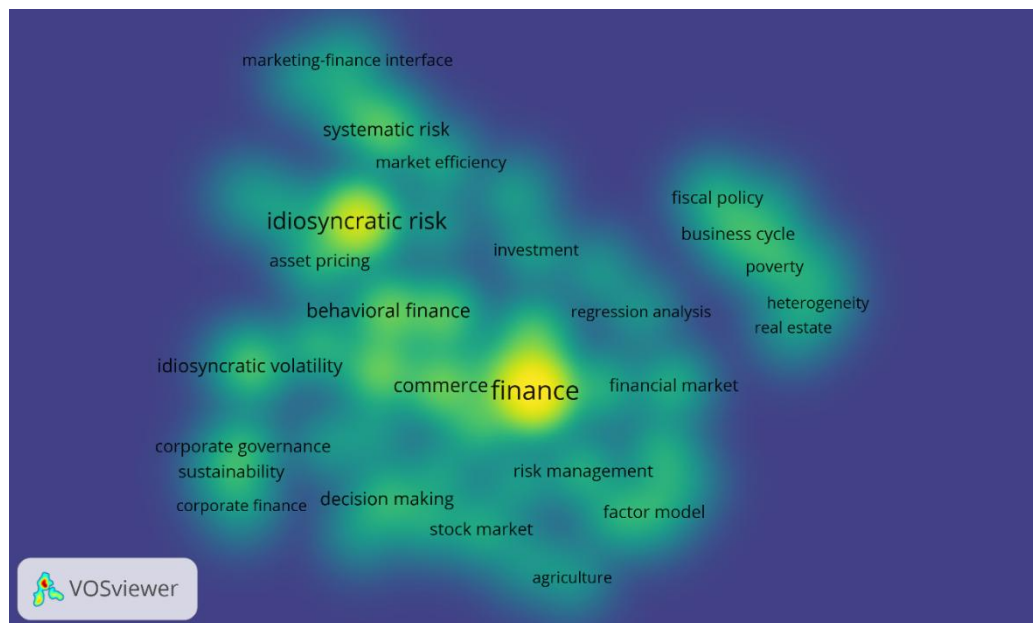


Figure 6. Network Visualization

Source: Data Analysis, 2026

From the density map, it is clear that the intellectual core of the literature has a dense concentration around commerce finance, which shows as the brightest spot and the centermost hotspot. It implies that corporate finance acts as the focal point of integration for several lines of idiosyncratic risks research. Around this core lie the hotspots such as idiosyncratic risks, behavioral finance, systematic risk, asset pricing, and financial markets, which show high density and suggest that these concepts act as the backbone of the field in terms of theory and empirical work. Although peripheral, some density clusters can be found within the broader macro-financial and institutional categories such as fiscal policy, business cycle, poverty, heterogeneity, and real estate. The density within these categories is significantly lower, indicating that these are new frontiers in research rather than already well-established topics. The distance of these topics from the central cluster signifies a level of specialization wherein idiosyncratic risk can be applied in different fields of economics and policies.

### 3.2 Discussion

The bibliometric analysis conducted in this paper allows us to conclude that it offers a systematic understanding of the structure, development, and themes of idiosyncratic risk in corporate finance studies. In general, the results show that the literature is quite concentrated in terms of its theoretical basis related to asset pricing and corporate finance, as well as its broadening towards other fields. The coauthorship network, along with the institutional and country-specific networks, reveals that knowledge production is quite centralised in terms of influential authors, institutions, and countries, namely the USA. The concentration of the research structure corresponds to bibliometric studies conducted in financial economics, where top-ranked academic institutions dominate theoretical and empirical innovations (Donthu et al., 2021).

In terms of concepts, the co-occurrence analysis of the keyword shows that idiosyncratic risk continues to be firmly entrenched in the conceptual structures of financial economics as systematic risk, asset pricing, and market efficiency. The identified topics form the core conceptual base of the field, derived from the modern portfolio theory and equilibrium models of asset pricing (Markowitz, 1952; Sharpe, 1964). Nevertheless, the existence of powerful links to behavioral finance, investment decision making, and the stock market implies that there is a paradigm shift. Such a shift is associated with the increasing

understanding that firm-level risk does not only mechanically depend on diversification theories but also influenced by behavioral considerations.

The overlay and density maps further establish the existence of a definite time-based pattern in terms of intellectual growth within the field. Research at an early stage focused on the micro-level aspects of idiosyncratic risks and involved topics such as idiosyncratic volatility and stock market dynamics. Mid-stage research has increasingly been incorporating idiosyncratic risks into the fields of corporate finance, risk management, and financial markets, thus representing the development of idiosyncratic risks as a financial issue of the corporation. Current trends of research have increasingly diversified into the realm of macroeconomic and policy-related issues such as business cycle, fiscal policies, and heterogeneity.

From the point of view of institution and geography, the results show a high degree of domination of the American educational institutions with respect to the research agenda, which can be attributed to elite universities and research centers such as Columbia University, MIT, and NBER. However, involvement of more and more countries such as China, Germany, India, and Brazil demonstrate the gradual globalization of the field of research. Although there has been growth in the number of researchers working on the topic, the collaboration pattern appears to be partly segmented, implying that the intellectual exchange is confined to existing academic circles only.

The density analysis corroborates the presence of an explicit intellectual core complemented by peripheral themes. Within the core lie areas such as business finance, idiosyncratic risk, and asset pricing which provide the structural foundation of the literature. On the other hand, fiscal policy, real estate, and heterogeneity clusters which are peripheral in nature reflect new directions for research. It means that the field is going through a stage of diversification wherein there is dominance of existing theories but at the same time there is room for growth across disciplines. This suggests that the future research in idiosyncratic risks would involve integration of corporate finance with macroeconomic and behavioral perspectives.

#### 4. CONCLUSION

The current study offers an extensive bibliometric mapping of the global research network on the topic of idiosyncratic risk within corporate finance by employing Scopus database and VOSviewer techniques. It can be stated that there are several influential topics that form a core of the research field such as commerce finance, idiosyncratic risk and asset pricing that constitute the theoretical background of the literature on the issue under discussion. Co-authorship and affiliation analyses show that there is a strong predominance of research performed at U.S. universities while a growing presence of authors from countries like China, Germany and India proves the ongoing process of globalization of the area.

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