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MAPPING TRENDS IN INFORMATION ASYMMETRY RESEARCH: A BIBLIOMETRIC STUDY

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ABSTRACT

This study conducts a comprehensive bibliometric analysis of information asymmetry research from 1979 to February 2024, focusing on subject areas within Economics, Econometrics, and Finance; Business, Management, and Accounting; and Social Sciences. Utilizing tools such as biblioMagika, OpenRefine, VOSviewer, and Microsoft Excel, we examine the publication landscape, identify prolific contributors, and highlight influential journals and highly cited documents. Key findings reveal the dominance of the United States in both quantity and impact of publications, with notable emerging contributions from countries like China. Journals such as the Journal of Accounting and Economics and Economics Letters are pivotal sources for information asymmetry research. The co-occurrence analysis uncovers core themes such as adverse-selection costs, signalling, and corporate governance. Temporal analysis indicates a shift towards topics like investment efficiency and firm value in recent years. This study also identifies research gaps, suggesting opportunities for future studies to address underexplored areas. Overall, this research provides a foundational understanding of information asymmetry, guiding future scholarly inquiries and practical applications.

Keywords: information asymmetry; bibliometrics; biblioMagika; OpenRefine; VOSviewer

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1. INTRODUCTION

The concept of information asymmetry is a cornerstone in the field of economics, shedding light on the imbalances that occur when one party in a transaction has more or superior information than the other. This imbalance can lead to a power shift in negotiations, potentially resulting in adverse selection and moral hazard. The term gained prominence following Akerlof (1970) paper, "The Market for 'Lemons'", which illustrated how information asymmetry could lead to market inefficiency and even failure. The importance of understanding information asymmetry lies in its widespread impact across various market transactions and its ability to explain certain market phenomena that standard economic models, assuming perfect information, cannot. It has implications for policymaking, as it necessitates the creation of regulations to ensure fair market practices and protect consumers from potential exploitation due to information imbalances. The concept also plays a crucial role in the corporate world, affecting contracts and performance measurement. Information asymmetry about measurement quality can alter the effectiveness of performance measures and incentives, complicating principal-agent relationships (Glover & Levine, 2019). The implications of information asymmetry extend to various economic interactions, including principal-agent relationships, where agents may act opportunistically if their actions are not fully observable by principals. Lambert et al. (2012) investigated the effect of information asymmetry on the cost of capital and emphasised its importance for the financial markets. Furthermore, information asymmetry affects capital structure decisions, with firms facing higher level of asymmetry opting for financing methods that reflect the perceived risk associated with their information transparency (Baxamusa et al., 2015). Furthermore, Bergh et al. (2018) have provided a comprehensive overview of information asymmetry in management research, emphasising its ubiquity and the need for a nuanced understanding of its impact. The relevance of information asymmetry extends beyond economics and influences various fields such as finance, healthcare, and corporate governance, highlighting its broad applicability and importance. In healthcare, for example, information asymmetry between doctors and patients can lead to reduced trust and increased aggression on the part of patients, as a study on the Chinese doctor-patient relationship shows (Xu & He, 2019).

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The study of information asymmetry is particularly prevalent in the fields of economics, business, accounting, finance, and management due to the critical role that information plays in market transactions and strategic decision-making. In these domains, the existence of information asymmetry can significantly impact market efficiency and the behaviour of economic agents, making it essential to address these asymmetries to understand and improve outcomes. The fundamental relationship between information asymmetry and market functioning is rooted in economic theory. According to Diamond and Verrecchia (1991), varying degrees of information asymmetry can influence market liquidity and, consequently, the cost of capital for firms engaged in public disclosures. This relationship highlights that in markets characterized by high levels of information asymmetry, firms may face increased costs associated with raising capital, which can ultimately hinder economic growth. Furthermore, the study by Wankhade and Dabade (2005) indicates that asymmetric information between borrowers and lenders complicates financial transactions, leading to adverse selection and issues in credit markets that can directly impact economic development. Additionally, the significance of information asymmetry is present within corporate governance and management practices. The research by Li and Xie (2013) on cross-border acquisitions shows that firms must navigate information asymmetry to determine the appropriate equity shares to acquire, emphasizing the strategic management implications of information flows in investment decisions. This aspect highlights how management strategies must incorporate information processes to mitigate risks associated with asymmetric information, further solidifying the relevance of studying this phenomenon within the field of management. The examination of information asymmetry in economics, business, finance, and management reveals vital implications for market behavior, capital costs, governance, and policymaking. These fields depend heavily on the flow and accuracy of information, underscoring their inherent focus on mitigating asymmetries to enhance economic outcomes.

Despite the wealth of literature on information asymmetry, there is a lack of comprehensive bibliometric studies explicitly aimed at systematically mapping and profiling the trends, social structure, and patterns in information asymmetry literature. Several example of literature review study related to information asymmetry has been conducted in the past in field of economics, business, accounting, finance, and management (see Table 1). While several literature reviews have addressed aspects of information asymmetry, such as risks in construction projects (Ivić & Cerić, 2023), corporate disclosure and capital markets (Healy & Palepu, 2001), the intersection of Industry 4.0 and corporate governance (Yaacob & Ng, 2021; Yaacob et al., 2024), dividend payout policy (Kinyua, 2022), and statutory audit (Stárková & Janíčko, 2021), these reviews do not provide a systematic bibliometric analysis of the entire field. This gap makes it difficult for us to fully understand the development of research in this area and to identify areas that should be explored further. By analysing publication trends, author networks, and collaboration patterns, we seek to uncover hidden insights, identify influential authors, and highlight the most influential institutions. Our study will contribute to a deeper understanding of information asymmetry and guide future research efforts in this dynamic field.

This study aims to conduct a comprehensive bibliometric analysis of the literature on information asymmetry to understand its evolution and current state. This bibliometric study seeks to address the following research questions:

1. What is the current landscape of information asymmetry research?
2. What emerging trends can be observed in information asymmetry publications?
3. In terms of authors, institutions, countries, and source titles, who are the most productive contributors to information asymmetry studies?
4. Which journals and publications act as the epicentres for ground-breaking information asymmetry studies?
5. What landmark papers have shaped the discourse and direction of information asymmetry research?
6. What are the frequent keywords in information asymmetry studies?

By answering these questions, the study aims to map the bibliometric contours of information asymmetry research, providing valuable insights into its historical trajectory and current directions. This will not only enrich the understanding of the field but also guide future scholarly endeavours.

Table 1. Previous Literature Review on Information Asymmetry Studies

Author(s)	Study Focus	Methodology	Key Finding
Brent and Addo (2012)	Firm size and ability to minimize information asymmetry (finance/banking context)	Systematic literature review (200+ studies on firm size vs. info asymmetry)	Large firms are generally more transparent and thus more effective at reducing information asymmetry than small firms. Small firms' opaqueness leads to higher borrowing costs and credit constraints.
Omar et al. (2017)	Agency theory, information asymmetry, and compliance in business (management context)	Systematic review (Web of Science & Scopus, 11 articles on agency & compliance)	Identified that few compliance-focused studies explicitly tackle information asymmetry; those that do span domains like supply chain and corporate disclosure. Firms that go beyond mandatory compliance (sharing more information) achieve better performance. Lack of knowledge-management integration in addressing info gaps noted as a research gap.
Ivić and Cerić (2023)	Risks caused by information asymmetry in construction projects (project management)	Systematic review (PRISMA method, 94 articles) + content analysis	Research on this topic is limited and not well integrated with theory. Common risks identified include moral hazard (contractors underperforming when not monitored) and adverse selection in contractor selection. Few studies connect these to classic theory or quantify impacts. Mitigation measures (e.g. better contract terms, transparency tools) are discussed more often than implemented. Future need for a comprehensive risk management framework targeting info asymmetry.
Yaacob et al. (2024)	Industry 4.0 technologies (Blockchain, IoT, CPS, Cloud) and information asymmetry in corporate governance (finance/tech)	Systematic literature review (521 articles scanned, 9 in-depth; mixed-methods discussion)	Found that blockchain is the predominant technology discussed for reducing information asymmetry, particularly in improving corporate disclosures and shareholder trust. Very few studies address other IR4.0 tech (IoT, AI) in this context, indicating a gap. The review calls for more research on integrating multiple technologies to enhance transparency and data sharing in corporate settings.

2. METHODS

The analysis utilised data obtained from the Scopus database as of February 28, 2024. The decision to choose Scopus was strategic and based on its esteemed reputation as a leading and extensive database of peer-reviewed literature, known for its abstracts and citations. Scopus is a suitable option for a thorough bibliometric analysis due to its strict quality standards and extensive global coverage. The reason for choosing it as the main data source for this study was its capacity to offer a wide range of metadata, including citation data and authors' affiliations, as supported by Burnham (2006) and Chadegani et al. (2013). The collected data included document type, source type, languages, subject areas, publication trends, number of authors per document, institutional contributions to publications, country-wise publication distribution, and prevalent keywords, among other characteristics.

2.1. Search strategy and Data Collection

As of February 28, 2024, the statistics were retrieved from the Scopus database. The search was performed using the article title as the primary search field, which allowed for accurate and relevant results pertaining to the subject of information asymmetry. The following query was used to attain this goal: TITLE ("information asymmetr*" OR "asymmetr* information"). This initial search yielded a total of 3,504 documents returned from this query. The dataset was further refined by filtering Scopus subject limit to subject area in Economics, Econometrics and Finance; Business, Management and Accounting; and Social Sciences. After this exclusion process, the dataset included 1,886 documents. This process is visualised in Figure 1.

2.2. Data Cleaning and Harmonisation

Data cleansing and harmonisation are essential processes in bibliometric analysis to guarantee the precision and dependability of the outcomes. This study utilised OpenRefine and biblioMagika (Ahmi, 2023), specialised tools for cleaning and standardising disorganised data, such as author names, affiliations, keywords, and other crucial bibliographic details. The tools were crucial in maintaining data accuracy and consistency, especially due to the diversity of research results and possible discrepancies in the data. The researchers initiated the cleaning process by obtaining the Scopus data in a .csv file type. Selected files were cleaned by identifying and editing certain columns such keywords, author names, and affiliations using various methods and functions in clustering programmes. OpenRefine was a crucial tool in standardising and enhancing the accuracy

of the data. BiblioMagika was used to perform comprehensive bibliometric analyses, including metrics like Total Publications (TP), Number of Contributing Authors (NCA), Number of Cited Publications (NCP), Total Citations (TC), Citations per Paper (C/P), Citations per Cited Paper (C/CP), Citations per Author (C/A), Authors per Paper (A/P), Citations per Year (C/Y), Citable Year, h-index, g-index, and m-index, as well as Citation Sum within h-Core for year, source titles, authors, institutions, and country. BiblioMagika helped detect missing data, allowing us to manually fill up the gaps and carry out the cleaning and harmonisation procedure. Following the first round of cleaning, all filtered and revised keywords and affiliations and countries underwent a manual verification process for precision. Joined multivalued cells and re-entered the initial separators used throughout the splitting procedure to ensure data consistency. The cleaned and harmonised data was exported back to its original format for additional analysis. By utilising the capabilities of these instruments, we ensured the accuracy of our following analyses and the dependability of our results. The harmonisation and cleaning procedures enhanced the precision and clarity of our dataset, providing a stronger foundation for investigating the intricate realm of information asymmetry.

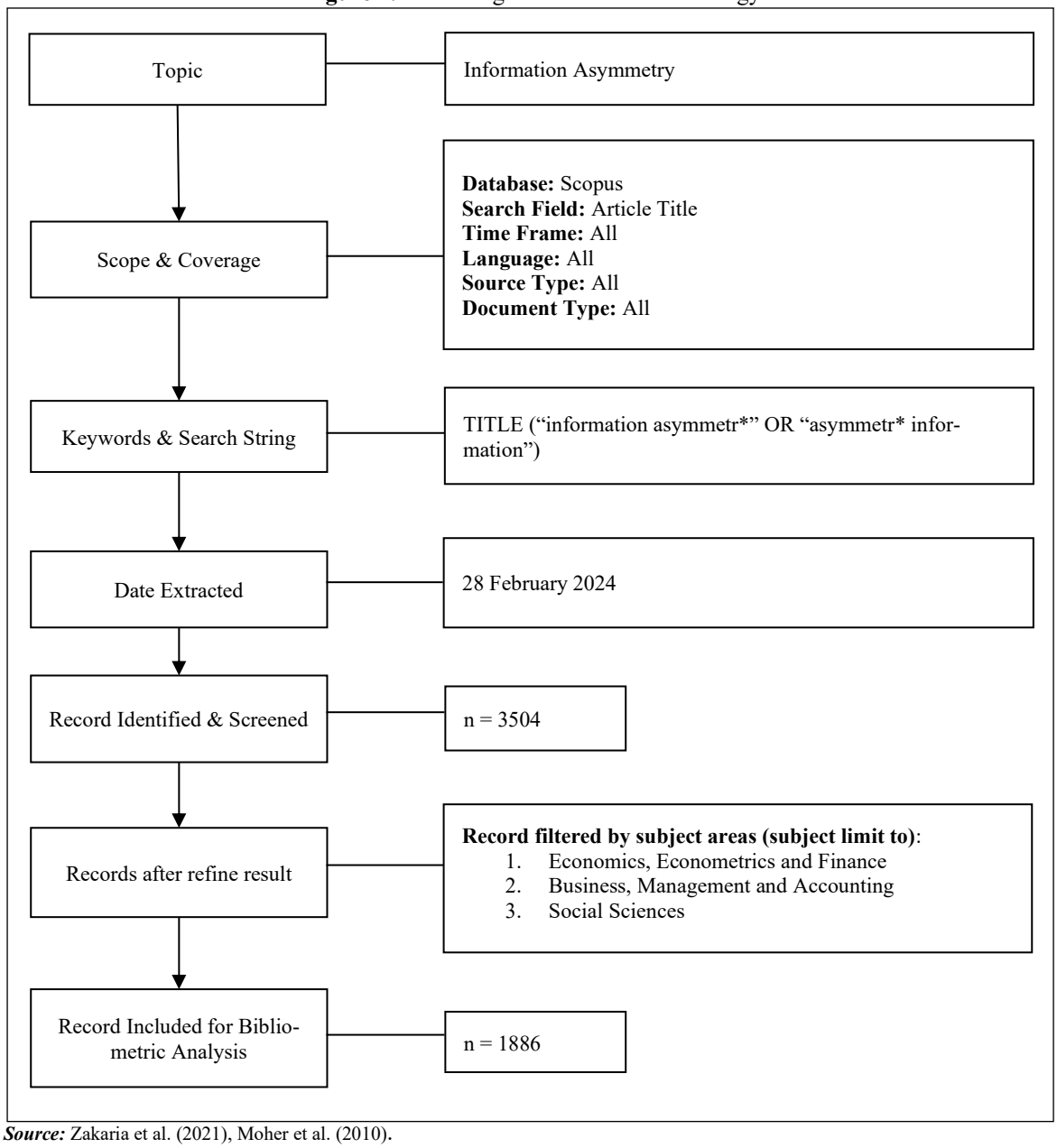
2.3. Data Analysis

The data analysis was organised to address the study topics specified in the introduction. We documented the present state of information asymmetry research by analysing document types, source types, languages, subject areas, and citation metrics. The results are displayed according to many criteria, including the number of papers published year, articles authored by the most prolific writers, institutions, nations, and source titles. This is done to recognise primary contributors and prevailing trends in the subject. Bibliometric measurements, including total publications, number of cited papers, total citations, citations per paper, citations per cited papers, h-index, g-index, m-index, and citation sum within h-core, were used to evaluate the impact and relevance of the identified publications. We visualised the co-authorship analysis by utilising co-occurrence network analysis, thematic mapping, and factorial analysis to highlight important topics and concepts in the subject. The visualisations aided in identifying clusters of similar issues, revealing hidden patterns, and providing insights into the linkages among different study subdomains.

2.4. Tools

Various techniques were used in this study to perform an extensive bibliometric analysis. Microsoft Excel was utilised for the initial data cleaning and structuring, whereas BiblioMagika facilitated the cleaning, harmonising, and standardising of author, affiliation, and country data. The author's keywords data was cleaned and harmonised using OpenRefine. We utilised VOSviewer to provide relevant visual representations of our findings after preparing the data. VOSviewer employs text mining to display citation correlations in published papers, generating an interconnected publication map for enhanced detail (Al Husaeni & Nandiyanto, 2022; Tupan, 2016). It visually represents nodal networks by illustrating the quantity and intensity of connections through two consistent weights, thereby highlighting the importance and strength of each link. By integrating clustering and mapping methods, VOSviewer detects relevant noun phrase combinations, facilitates co-citation and co-occurrence analyses, and offers robust visualization capabilities (Effendy et al., 2021). On its network map, items, lines, and colours depict relationships: heavier items appear more prominent, though their labels and circles can be overshadowed by increased weight. VOSviewer also categorises visual outcomes into multiple clusters, each indicated by a distinct colour, while lines signify connections between items (van Eck & Waltman, 2021).

Figure 1. Flow Diagram of the Search Strategy



Source: Zakaria et al. (2021), Moher et al. (2010).

3. RESULTS

In the next section on findings, we will conduct an in-depth study of information asymmetry by addressing the research questions (RQs) outlined in the introduction in order to gain a deeper understanding of this area. We aim to provide a comprehensive and detailed study of the research landscape on information asymmetry by focussing on specific research problems. This will provide researchers, practitioners, and policy makers with important insights.

3.1. Current landscape

To address RQ1: "What is the current landscape of information asymmetry research and its trends?", we analysed the publication trends in information asymmetry studies based on total publications per year, language, document type, source type, and subject area.

Table 2 displays the citation metrics and parameters for bibliometric analysis, providing insights into the influence and significance of publications in the information asymmetry study field. The analysis utilised biblioMagika software to convert Scopus data into several metrics including number of papers, number of citations, total years, citations per year, citations per author, papers per author, h-index, and g-index. As shown in Table 1, between 1979 until 2024, 1,886 publications have been contributed by 4,033 authors, indicating a collaborative research environment with an average of 2.14 authors per paper. The publications have cited 1,593 papers, accumulating a total of 54,785 citations, which suggests a significant impact within the academic community. On average, each paper received 29.05 citations, while each cited paper garnered 34.39 citations, reflecting the relevance and utility of the research. Each author has received an average of 13.58 citations, highlighting individual contributions to the field. The h-index of 111 and g-index of 191 demonstrate the depth and breadth of influential works, with the citation sum within the h-core reaching 48,738. The m-index of 2.41 further indicates sustained research activity over time. This analysis underscores the dynamic and influential nature of information asymmetry research.

Table 2. Citation Metrics

Main Information	Data
Start Year	1979
End Year	2024
Total Publications	1,886
Number of Contributing Authors	4,033
Number of Cited Papers	1,593
Total Citations	54,785
Citation per Paper	29.05
Citation per Cited Paper	34.39
Citation per Author	13.58
Citation sum within h-Core	48,738
Citable Year	46
h-index	111
g-index	191
Publication Years	1979 - 2024
Citation Years	45
Citation per Year	1217.44
Author per Paper	2.14
m-index	2.41

Table 2 illustrates the distribution of publications among four distinct source categories. Predominantly, journals emerge as the most prevalent source category, encompassing 94.75% of the overall publications, whereas books trail behind at 2.60%. Examination of the data in Table 3 further uncovers that book series exhibit the lowest occurrence among the source categories, representing merely 0.85%.

Table 3. Source Type

Source Type	Total Publications	Percentage (%)
Journal	1,787	94.75%
Book	49	2.60%
Conference Proceeding	34	1.80%
Book Series	16	0.85%
Total	**1886**	**100.00**

A comprehensive analysis of research on information asymmetry from a language perspective, as depicted in Table 4, reveals that the majority of publications, amounting to 1,851 documents, are in the English language. Moreover, Table 3 illustrates that studies on information asymmetry have also been disseminated in various other languages including Korean, Chinese, French, Portuguese, among others.

Table 4. Languages

Language	Total Publications	Percentage (%)
English	1,851	98.14%
Korean	7	0.37%
Chinese	6	0.32%
French	5	0.27%
Portuguese	4	0.21%
Russian	4	0.21%
Spanish	3	0.16%
German	2	0.11%
Polish	2	0.11%
Ukrainian	2	0.11%
Arabic	1	0.05%
Czech	1	0.05%
Italian	1	0.05%
Malay	1	0.05%
Serbian	1	0.05%
Slovak	1	0.05%
Total	**1886**	**100.00**

Based on Table 5, publications on information asymmetry were published predominantly in the journals categorized in Economics, Econometrics and Finance with 1,537 documents.

Table 5. Subject Area

Subject Area	Total Publications	Percentage (%)
Economics, Econometrics and Finance	1,537	81.50%
Business, Management and Accounting	917	48.62%
Social Sciences	274	14.53%
Total	**1886**	**100.00**

Document profiles or document types encompass a variety of formats, such as articles, conference papers, book chapters, and review articles, among others. Conference papers typically represent research findings presented at conferences, with some appearing in conference proceedings or as book chapters. Table 6 illustrates the distribution of these document types. According to Table 3, most publications were articles, amounting to 90.83% of the total. This indicates that journals are the primary medium for disseminating research findings in this field. The remaining document types each made up less than 5% of the total publications.

Table 6. Document Type

Document Type	Total Publications	Percentage (%)
Article	1,713	90.83%
Book Chapter	51	2.70%
Review	51	2.70%
Conference Paper	47	2.49%
Book	6	0.32%
Erratum	6	0.32%
Retracted	5	0.27%
Note	3	0.16%
Short Survey	3	0.16%
Editorial	1	0.05%
Total	**1,886**	**100.00**

3.2. Publication trends

In addressing the research question concerning the publication trend, we delineate the developmental trajectory of this emerging field. Since its inception in 1979, the research on information asymmetry has witnessed a substantial increase, as depicted in Figure 2 and Table 7. The graphical representation in Figure 2 elucidates the remarkable narrative of growth by showcasing the evolution of total publications and citations over time. The bar graph illustrates a burgeoning trend in publications, punctuated by a few significant surges in recent years. Simultaneously, the line graph accentuates the escalating total citations, reaching a pinnacle of 4,320 citations in 2001. Additionally, Table 7 demonstrates an expansion in total publications; the number of contributing authors (NCA) has displayed an upward trajectory, indicating a flourishing and diverse research community. Concerning the influence of this research, the h-index, g-index, and m-index values, as presented in Table 7, manifest a consistent upward progression, affirming the increasing significance and pertinence of information asymmetry research. The average citations per publication (C/P) and average citations per cited publication (C/CP) can indicate the impact and quality of the research. The total citations (TC) have shown fluctuations over the years, with some peaks indicating highly influential papers, such as in 1985, 1990, and 2000. However, there is a recent decline in the average citations per publication

(C/P) and citations per cited publication (C/CP), which could be due to the large number of new publications that have not yet had time to accumulate citations.

The significant rise in the number of contributing authors and cited publications indicates increased collaboration among researchers and the development of a robust network of studies that build upon each other's work. This trend is essential for advancing the understanding of information asymmetry. Certain years, notably 1985, 1990, and 2000, have seen spikes in total citations, reflecting the publication of seminal works that have significantly influenced subsequent research. These peaks are crucial for identifying landmark studies in the field. While the number of publications continues to grow, the recent years (post-2020) show a decline in average citations per publication. This could be attributed to the time required for new research to gain recognition and be cited. Additionally, the sheer volume of new publications might dilute the citation count. Given these trends, several recommendations can be made for future research in information asymmetry. Researchers should aim to produce high-impact studies that address critical gaps in the literature and propose innovative solutions. Innovative solutions in mitigating information asymmetry could include for example blockchain-based verification systems in supply chains, advanced data-sharing protocols in healthcare, or AI-driven credit-scoring models in finance. By specifying these domains, you convey how interdisciplinary methods (e.g., combining finance, data science, law) create new ways to combat information gaps. Increasing collaboration, especially international collaborations, can lead to more comprehensive and diverse research outputs. Collaborative efforts can also enhance the dissemination and impact of research findings. Longitudinal studies that track changes and developments over time can provide deeper insights into the dynamics of information asymmetry. Such studies can help in understanding long-term trends and the effectiveness of various interventions. Leveraging advanced bibliometric and network analysis tools can uncover hidden patterns and relationships within the literature. This can help in identifying emerging subfields and potential areas for future research.

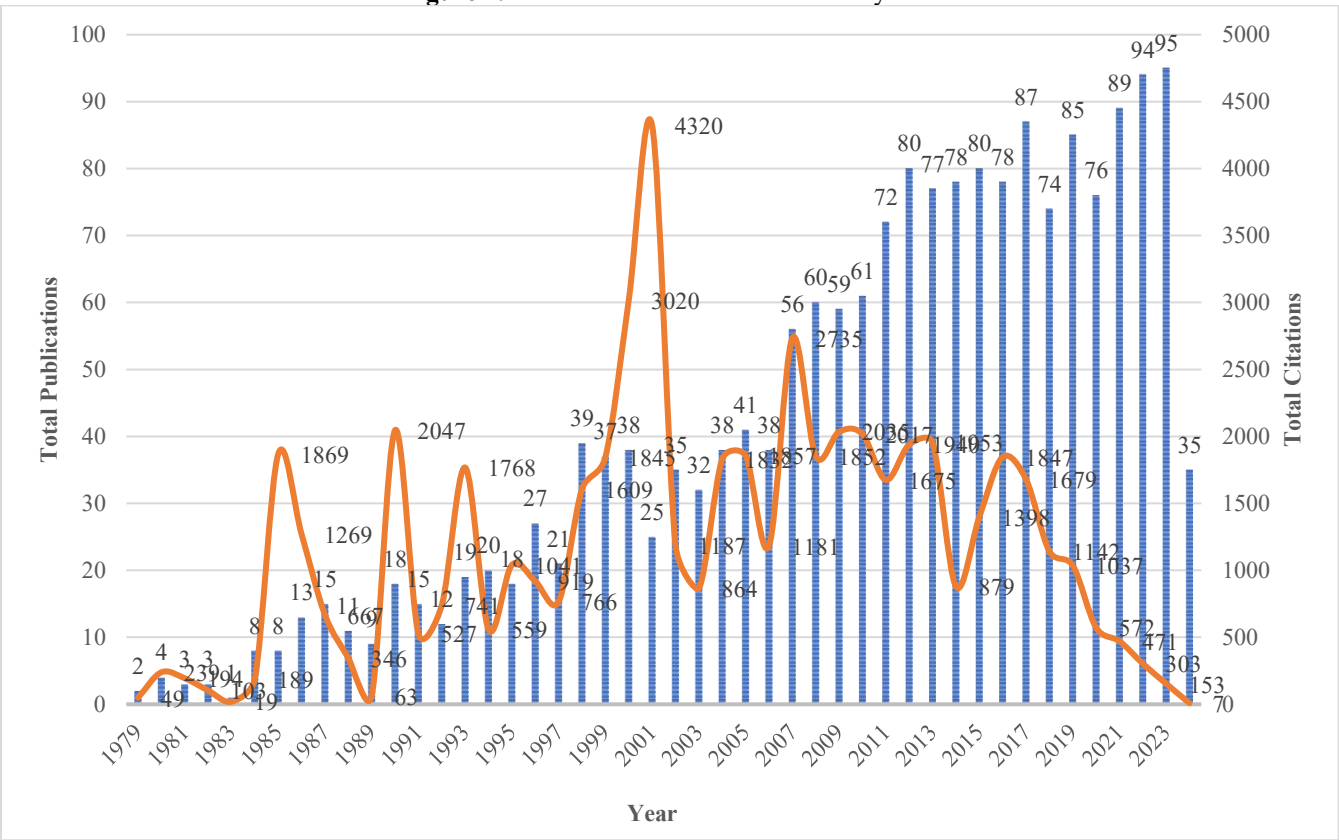
Table 7. Publication by Year

Year	TP	NCA	NCP	TC	C/P	C/CP	*h*	*g*	*m*
1979	2	2	1	49	24.50	49.00	1	2	0.02
1980	4	6	4	239	59.75	59.75	3	4	0.07
1981	3	3	3	194	64.67	64.67	3	3	0.07
1982	3	5	3	103	34.33	34.33	3	3	0.07
1983	1	1	1	19	19.00	19.00	1	1	0.02
1984	8	10	6	189	23.63	31.50	6	8	0.15
1985	8	14	8	1,869	233.63	233.63	6	8	0.15
1986	13	20	12	1,269	97.62	105.75	9	13	0.23
1987	15	24	13	667	44.47	51.31	9	15	0.24
1988	11	16	7	346	31.45	49.43	6	11	0.16
1989	9	13	8	63	7.00	7.88	5	7	0.14
1990	18	28	17	2,047	113.72	120.41	12	18	0.34
1991	15	20	15	527	35.13	35.13	8	15	0.24
1992	12	24	11	741	61.75	67.36	10	12	0.30
1993	19	30	19	1,768	93.05	93.05	12	19	0.38
1994	20	34	19	559	27.95	29.42	11	20	0.36
1995	18	34	16	1,041	57.83	65.06	10	18	0.33
1996	27	45	27	919	34.04	34.04	14	27	0.48
1997	21	38	20	766	36.48	38.30	12	21	0.43
1998	39	70	36	1,609	41.26	44.69	17	39	0.63
1999	37	57	35	1,845	49.86	52.71	17	37	0.65
2000	38	68	38	3,020	79.47	79.47	19	38	0.76
2001	25	44	25	4,320	172.80	172.80	13	25	0.54
2002	35	66	31	1,187	33.91	38.29	20	34	0.87
2003	32	55	31	864	27.00	27.87	14	29	0.64
2004	38	68	34	1,832	48.21	53.88	17	38	0.81
2005	41	84	37	1,857	45.29	50.19	20	41	1.00
2006	38	77	32	1,181	31.08	36.91	17	34	0.90
2007	56	109	51	2,735	48.84	53.63	16	52	0.89
2008	60	112	56	1,852	30.87	33.07	22	42	1.29
2009	59	114	53	2,035	34.49	38.40	21	44	1.31
2010	61	132	53	2,017	33.07	57.21	20	44	1.33
2011	72	164	55	1,675	23.26	48.51	22	40	1.57
2012	80	175	70	1,940	24.25	40.24	20	43	1.54
2013	77	182	73	11953	25.36	34.95	25	42	2.08
2014	78	179	73	879	11.27	35.15	17	25	1.55
2015	80	187	64	1,398	17.48	22.86	21	35	2.10
2016	78	176	64	1,847	23.68	28.27	20	42	2.22
2017	87	208	75	1,679	19.30	23.22	19	39	2.38
2018	74	192	68	1142	15.43	20.64	20	31	2.86
2019	85	204	72	1,037	12.20	30.83	15	30	2.50
2020	76	182	64	572	7.53	19.05	13	18	2.60
2021	89	212	71	471	5.29	16.47	11	17	2.75

Year	TP	NCA	NCP	TC	C/P	C/CP	*h*	*g*	*m*
2022	94	227	70	303	3.22	14.04	7	13	2.33
2023	95	237	47	153	1.61	12.67	7	9	3.50
2024	35	85	5	7	0.20	6.34	2	2	2.00
Total	**1,886**	**4,033**	**1,593**	**54,785**	**23.55**	**29.05**	**111**	**191**	**2.41**

Notes: TP=total number of publications; NCA=Number of contributing authors; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; g=g-index; m=m-index.

Figure 2. Total Publications and Citations by Year



3.3. Publications by Authors

To address the third research question, "In terms of authors, institutions, countries and source titles, who are the most productive contributors to information asymmetry studies?" we will investigate the field's most influential authors, institutions, and countries by examining their contributions, citation counts, and overall impact on the information asymmetry research landscape.

From the vantage point of the authors' publication, an analysis is conducted on the authors with high productivity, having published over five papers across various conferences and journals. This examination delves into a range of parameters, such as the total number of publications (TP), number of cited publications (NCP), total citations (TC), C/P, C/CP, h-index, g-index, m-index, and publication year start (PYS). The tabulated data in Table 8 showcases these authors in order of their TP, inclusive of their affiliations, countries, and the corresponding values of diverse bibliometric parameters. For instance, Asongu Simplice A. affiliated with Oxford Brookes University in the United Kingdom has authored 11 papers, 10 of which have received citations. These publications have amassed a total of 432 citations, resulting in an average of 39.27 citations per paper and 43.20 average citations per cited paper. Asongu Simplice A. boasts an h-index of 9, a g-index of 11, an m-index of 1, and commenced publishing in 2016.

Similarly, Schmitz Patrick W. from Universität zu Köln in Germany has authored 11 papers, with 8 of them being cited. His works have received 110 citations in total, with an average of 10.00 citations per paper and 13.75 citations per cited paper. Schmitz Patrick W. has an h-index of 6, a g-index of 10, an m-index of 0.261, and started publishing in 2002. Every author listed in Table 8 can be interpreted similarly. This thorough research offers insights into details such as the author's productivity, citation impact factor, and their influence in the specific area of publication, which is information asymmetry.

Table 8. Most Productive Authors

Author's Name	Current Affiliation	Country	TP	NCP	TC	C/P	C/CP	*h*	*g*	*m*	PYS
Asongu, Simplice A. (55489726500)	Oxford Brookes University	United Kingdom	11	10	432	39.27	43.20	9	11	1.000	2016
Schmitz, Patrick W. (7102452382)	Universität zu Köln	Germany	11	8	110	10.00	13.75	6	10	0.261	2002
Martimort, David (6701759268)	Toulouse School of Economics - Recherche - (TSE-R)	France	10	10	283	28.30	28.30	6	10	0.207	1996
Abdul-Rahim, R. (23975145400)	Universiti Kebangsaan Malaysia	Malaysia	8	8	39	4.88	4.88	5	6	0.455	2014
Yannelis, Nicholas C. (6701669993)	University of Iowa	United States	8	7	110	13.75	15.71	5	8	0.278	2007
Chung, Chune Young (55569036400)	Chung-Ang University	South Korea	6	5	49	8.17	9.80	4	6	0.444	2016
Mohd Rashid, R. (57214897022)	Universiti Utara Malaysia	Malaysia	5	5	46	9.20	9.20	5	5	0.455	2014
Tessema, Abiot Mindaye (57163355100)	Zayed University	United Arab Emirates	5	4	37	7.40	9.25	3	5	0.333	2016
Che-Yahya, Norliza (56338896000)	Universiti Teknologi MARA	Malaysia	5	5	42	8.40	8.40	4	5	0.500	2017
Abad, David (22939950200)	Universitat d'Alacant	Spain	5	5	208	41.60	41.60	4	5	0.500	2017
Yagüe, José (8381754200)	Universidad de Murcia	Spain	5	5	208	41.60	41.60	4	5	0.500	2017
Boadway, Robin (7003934170)	Queen's University	Canada	5	5	40	8.00	8.00	3	5	0.111	1998
Khoury, Nabil T. (7005086037)	Université du Québec à Montréal	Canada	5	4	31	6.20	7.75	3	5	0.075	1985
Noe, Thomas H. (7003876584)	University of Oxford, Saïd Business School	United Kingdom	5	5	116	23.20	23.20	4	5	0.114	1990
Dionne, Georges (7005055687)	HEC Montréal	Canada	5	5	137	27.40	27.40	5	5	0.152	1992
Salanié, Bernard (6602328527)	Columbia University	United States	5	5	662	132.40	132.40	5	5	0.172	1996

Notes: TP=total number of publications; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; g=g-index; m=m-index; PYS = Publication year start.

3.4. Publications by Institutions

Table 9 displays research production at the institutional level, specifically highlighting institutions that have published at least 12 articles on information asymmetry. The University of Pennsylvania leads with 29 publications and an impressive citation count, reflecting its significant role in advancing the field. New York University also shows a strong presence, with all of its publications being cited, indicating consistent quality and impact. However, The University of Chicago stands out with the highest C/P of 3,788, indicating significant impact in the field despite having 15 number of TP. The University of Chicago stands out for its high citations per publication, suggesting that its research is highly influential. Institutions from Singapore, Hong Kong, and Malaysia demonstrate the international scope of research in this area, with the National University of Singapore and The Hong Kong Polytechnic University showing notable productivity. The Universiti Kebangsaan Malaysia also makes the list, highlighting the diverse geographic spread of contributions to the field. Bibliometric indicators such as the h-index, g-index, and m-index provide further insight into the impact and productivity of these institutions. The h-index indicates the number of highly cited papers, while the g-index reflects the distribution of citations across papers, and the m-index measures the consistency of contributions over time. Collectively, these metrics underscore the influential and collaborative nature of research on information asymmetry. The University of Pennsylvania has the highest h-index (17), suggesting a significant number of highly cited papers.

Table 9. Most Productive Institutions with Minimum Of 12 Publications

Affiliation	Country	TP	NCP	TC	C/P	C/CP	*h*	*g*	*m*
University of Pennsylvania	United States	29	26	2,824	97.38	108.62	17	29	0.415
New York University	United States	24	24	1,887	78.63	78.63	16	24	0.410
Pennsylvania State University	United States	19	19	996	52.42	52.42	12	19	0.387
Columbia University	United States	17	15	467	27.47	31.13	9	17	0.220
National University of Singapore	Singapore	16	15	299	18.69	19.93	10	16	0.476
University of Illinois Urbana-Champaign	United States	15	14	263	17.53	18.79	9	15	0.265
The Hong Kong Polytechnic University	Hong Kong	15	14	250	16.67	17.86	8	15	0.296
The University of Chicago	United States	15	15	3,788	252.53	252.53	12	15	0.273
University of Wisconsin-Madison	United States	14	13	522	37.29	40.15	9	14	0.205
University of Iowa	United States	13	11	311	23.92	28.27	9	13	0.243
Indiana University Bloomington	United States	13	13	587	45.15	45.15	10	13	0.256
University at Buffalo, The State University of New York	United States	12	9	1,153	96.08	128.11	6	12	0.150
The University of British Columbia	Canada	12	12	1,060	88.33	88.33	10	12	0.250
Stanford University	United States	12	12	481	40.08	40.08	9	12	0.237
Georgia State University	United States	12	10	222	18.50	22.20	7	12	0.200
University of Minnesota Twin Cities	United States	12	12	741	61.75	61.75	7	12	0.219
Hong Kong University of Science and Technology	Hong Kong	12	10	544	45.33	54.40	6	12	0.250
University of Michigan, Ann Arbor	United States	12	12	1,443	120.25	120.25	8	12	0.178
Northwestern University	United States	12	12	674	56.17	56.17	9	12	0.200
Universiti Kebangsaan Malaysia	Malaysia	12	12	55	4.58	4.58	6	7	0.462

Notes: TP=total number of publications; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; g=g-index; m=m-index.

3.5. Publications by Countries

Table 10 shows top 20 countries contributed to the publications of information asymmetry and Figure 3 shows the worldwide map of TP for each country. The bibliometric analysis of the top 20 countries contributing to publications on information asymmetry reveals several notable trends and patterns. Unsurprisingly, the United States emerges as the leading contributor in terms of both quantity and impact, with a substantial TP score of 749 and a C/P ratio of 51.92, indicating significant scholarly influence. The United Kingdom follows, demonstrating a respectable volume of TP score of 169 and a notable C/P ratio of 23.25, reflecting a strong presence in the field. China, despite having a relatively lower number of publications compared to the United States and United Kingdom, shows promising growth and impact, with a steadily increasing publication output and a noteworthy C/P ratio of 10.44. Other countries like Canada, France, and Germany also exhibit considerable contributions, with consistent publication outputs and respectable citation metrics.

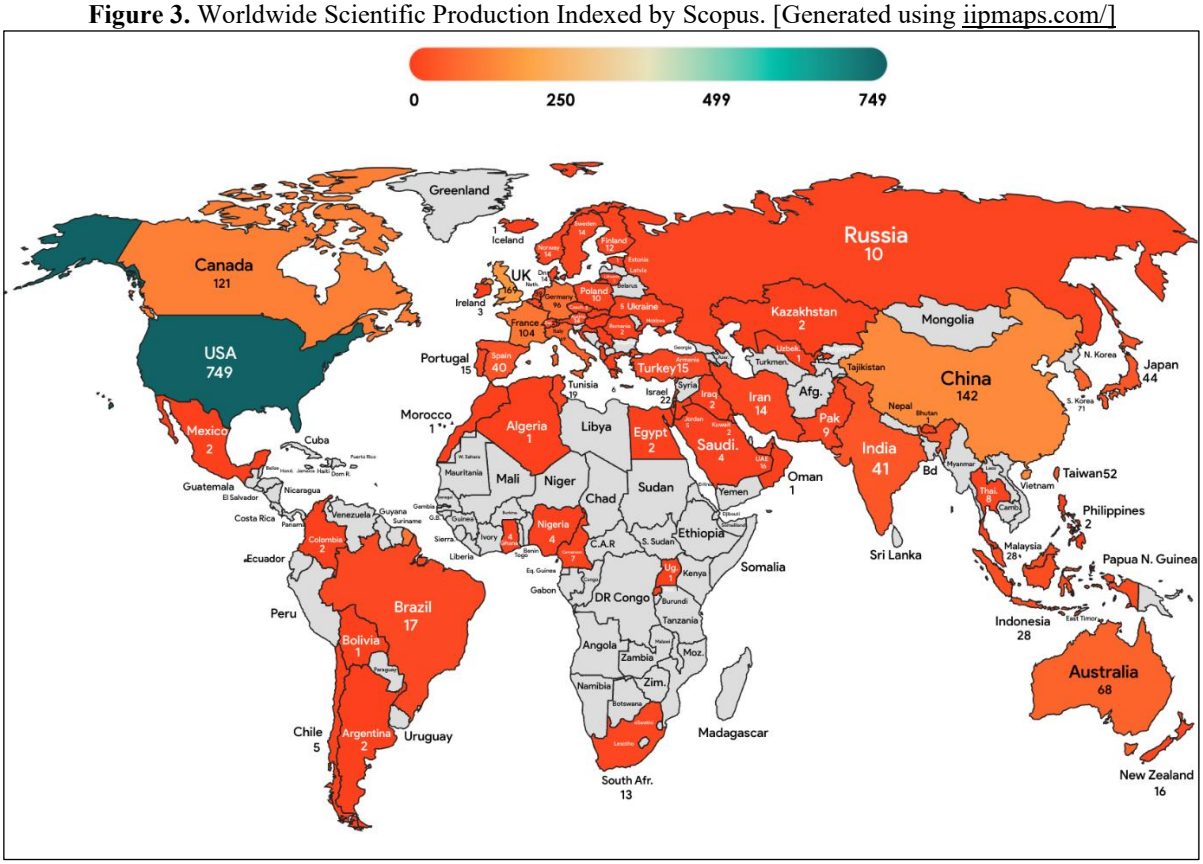
Interestingly, emerging economies like South Korea, Taiwan, and India demonstrate growing participation in information asymmetry research, albeit with varying citation impacts. South Korea and Taiwan show moderate publication outputs but comparatively lower citation metrics, suggesting potential for further scholarly influence. Conversely, India, with a modest number of TP score of 41, demonstrates a lower citation impact, indicating a need for increased visibility and engagement within the research community. Furthermore, countries such as Australia, Hong Kong, and Singapore showcase strong performance, with notable C/P ratio, highlighting their significant contributions to advancing knowledge in information asymmetry. These countries, along with others like Spain, Netherlands, and Belgium, underscore the global distribution of research efforts and the collaborative nature of scholarly endeavours in this field.

Table 10. Top 20 Countries Contributed to The Publications.

Country	TP	NCP	TC	C/P	C/CP	*h*	*g*	*m*	PYS
United States	749	692	38890	51.92	56.20	97	197	2.11	1979
United Kingdom	169	143	3930	23.25	27.48	33	62	0.81	1984
China	142	99	1482	10.44	14.97	19	38	0.95	2005
Canada	121	110	4355	35.99	39.59	31	65	0.76	1984
France	104	91	3042	29.25	33.43	20	55	0.53	1987
Germany	96	80	1884	19.63	23.55	22	43	0.56	1986
South Korea	71	56	977	13.76	17.45	15	31	0.47	1993
Italy	69	55	639	9.26	11.62	12	25	0.40	1995
Australia	68	64	1065	15.66	16.64	22	32	0.67	1992
Hong Kong	53	48	1576	29.74	32.83	21	39	0.54	1986
Taiwan	52	41	678	13.04	16.54	14	26	0.47	1995
Japan	44	35	1095	24.89	31.29	10	33	0.26	1987
India	41	31	285	6.95	9.19	10	16	0.26	1986
Spain	40	31	936	23.40	30.19	14	30	0.39	1989
Netherlands	39	37	1452	37.23	39.24	14	38	0.42	1992
Singapore	29	26	1065	36.72	40.96	14	29	0.61	2002
Malaysia	28	26	198	7.07	7.62	8	14	0.47	2008
Indonesia	28	16	78	2.79	4.88	6	8	0.32	2006
Israel	22	18	484	22.00	26.89	9	22	0.23	1986
Belgium	22	20	465	21.14	23.25	11	21	0.31	1990

Notes: TP=total number of publications; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; and g=g-index; PYS = Publication year start.

Figure 3. Worldwide Scientific Production Indexed by Scopus. [Generated using iipmaps.com/]



3.6. Publications by Source Titles

To answer the fourth research question about the central publications for ground-breaking studies on information asymmetry, Table 11 details the most active source titles, each with a minimum of 15 documents. Among the top-performing journals, Economics Letters emerges as the most prolific source title with 48 publications, although with a relatively lower C/P of 4.79. This suggests a high volume of research output but perhaps with varying degrees of impact. In contrast, the Journal of Accounting and Economics stands out with the highest C/P of 363.07, indicating a strong influence and significance of the research published in this journal. Similarly, The Journal of Finance and Journal of Financial Economics also exhibit notable C/P, underscoring their importance as leading outlets for disseminating impactful research in information asymmetry.

Comparing the performance of journals in the area of information asymmetry research based on their h-index reveals interesting insights into their scholarly impact and influence. The h-index, which measures the productivity and impact of publications within a journal, provides a valuable metric for assessing its overall performance. Among the journals listed, Journal of Banking and Finance stands out with the highest h-index of 19, indicating a substantial body of influential research publications. This journal is closely followed by Journal of Financial Economics with an h-index of 18, reflecting their significant contributions to the field. Notably, these top-performing journals exhibit a combination of high publication outputs and impactful citations, indicating their role as leading platforms for disseminating cutting-edge research in information asymmetry.

Overall, the analysis highlights the diversity of source titles contributing to information asymmetry research, each with its unique strengths and contributions. From journals specializing in theoretical economic analysis such as Economic Theory and Journal of Economic Theory to those focusing on empirical studies and applications like Journal of Finance and Journal of Risk and Insurance, the breadth of publication venues reflects the multidisciplinary nature of research in this field. By identifying key source titles and assessing their performance based on citation metrics and indices, this analysis offers valuable guidance for researchers seeking to navigate the scholarly landscape and access relevant and impactful literature in information asymmetry.

Table 11. Most Active Source Titles That Published 15 or More Documents

Source Title	TP	NCA	NCP	TC	C/P	C/CP	*h*	*g*	*m*
Economics Letters	48	70	36	230	4.79	6.39	9	12	0.20
Journal of Banking and Finance	36	89	34	1205	33.47	35.44	19	34	0.48
Economic Theory	31	58	30	303	9.77	10.10	10	15	0.35
Journal of Public Economics	24	43	23	616	25.67	26.78	13	24	0.30
Journal of Financial Economics	21	48	21	2566	122.19	122.19	18	21	0.39
Journal of Economic Theory	21	36	20	924	44.00	46.20	13	21	0.33
European Economic Review	20	27	18	429	21.45	23.83	12	20	0.32
Journal of Financial and Quantitative Analysis	19	37	19	1162	61.16	61.16	13	19	0.29
Pacific Basin Finance Journal	18	50	15	290	16.11	19.33	10	17	0.48
Review of Economic Studies	18	29	16	1079	59.94	67.44	14	18	0.32
Journal of Risk and Insurance	18	41	17	278	15.44	16.35	10	16	0.35
The Journal of Finance	17	27	17	4450	261.76	261.76	14	17	0.31
Financial Review	17	39	16	398	23.41	24.88	11	17	0.28
Contemporary Accounting Research	17	37	15	1643	96.65	109.53	9	17	0.24
Journal of Business Finance and Accounting	16	42	16	331	20.69	20.69	10	16	0.35
Review of Financial Studies	15	30	15	1496	99.73	99.73	13	15	0.46
Journal of Accounting and Economics	15	33	15	5446	363.07	363.07	14	15	0.36
Games and Economic Behavior	15	32	14	452	30.13	32.29	10	15	0.32
Journal of Economic Behavior and Organization	15	25	15	681	45.40	45.40	8	15	0.19
Accounting Review	15	40	13	921	61.40	70.85	12	15	0.41

Notes: TP=total number of publications; NCA=Number of contributing authors; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; g=g-index; m=m-index.

3.7. Highly Cited Documents

In response to fifth research question, Table 12 presents the top 20 highly cited articles that have significantly influenced the information asymmetry studies. In examining the landmark papers that have significantly shaped the discourse and direction of information asymmetry research, several seminal contributions stand out prominently. These publications are distinguished for their extensive effects, as evidenced by their significant number of citations, which demonstrate their importance and impact in the scholarly realm. Topping the list is the work by Healy and Palepu (2001), "Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature", published in the Journal of Accounting and Economics, has garnered a substantial citation count of 3,544 and cites per year count of 147.67, indicating its profound influence and enduring relevance in the field. This work has become a cornerstone for researchers exploring how information disclosure affects market behaviour and corporate governance.

Meanwhile, the work by Miller and Rock (1985), "Dividend Policy under Asymmetric Information", published in The Journal of Finance, has left an indelible mark with 1,658 citations, and cites per year count of 41.5. In this article, the potential information content of dividends is investigated in a signalling framework, and it is shown that a signalling equilibrium can only exist if dividend policy is not irrelevant even without informational effects. Moreover, Sharpe (1990) paper, "Asymmetric Information, Bank Lending, and Implicit Contracts: A Stylized Model of Customer Relationships", also published in The Journal of Finance, has significantly contributed to theoretical frameworks in finance with 1,060 citations. The paper develops a dynamic theory of customer relationships in bank loan markets, focusing on asymmetric information's impact on lending behaviour and capital allocation towards inexperienced firms.

Paper written by Rosenblat and Stark (2016), "Algorithmic labor and information asymmetries: A case study of Uber's drivers" is second highest cites per year with 80.56 although only total citations of 725. The paper published in the International Journal

of Communication, found that Uber does leverage significant indirect control over how drivers do their jobs and that the information and power asymmetries produced by the Uber application are fundamental to its ability to structure control over its workers. These landmark studies, along with others listed in Table 12, have profoundly shaped the research landscape of information asymmetry. They have introduced critical concepts, models, and empirical findings that continue to influence ongoing research. Future studies in this field can build on these foundational works by exploring new contexts and incorporating emerging technologies. Emphasizing interdisciplinary approaches and considering the evolving nature of information dissemination and asymmetry in digital and globalized markets will be crucial for advancing the understanding and practical implications of this essential economic phenomenon.

Table 12. Top 20 Highly Cited Articles

No.	Authors	Title	Source Title	Cites	Cites per Year
1	Healy and Palepu (2001)	Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature	Journal of Accounting and Economics	3,544	147.67
2	Miller and Rock (1985)	Dividend Policy under Asymmetric Information	The Journal of Finance	1,658	41.45
3	Sharpe (1990)	Asymmetric Information, Bank Lending, and Implicit Contracts: A Stylized Model of Customer Relationships	The Journal of Finance	1,060	30.29
4	Aboody and Lev (2000)	Information asymmetry, R&D, and insider gains	Journal of Finance	797	31.88
5	Rosenblat A.; Stark L. (2016)	Algorithmic labor and information asymmetries: A case study of Uber's drivers	International Journal of Communication	725	80.56
6	Sufi (2007)	Information asymmetry and financing arrangements: Evidence from syndicated loans	Journal of Finance	655	36.39
7	Welker (1995)	Disclosure Policy, Information Asymmetry, and Liquidity in Equity Markets	Contemporary Accounting Research	599	19.97
8	Flannery (1986)	Asymmetric Information and Risky Debt Maturity Choice	The Journal of Finance	556	14.26
9	Balakrishnan and Koza (1993)	Information asymmetry, adverse selection and joint-ventures. Theory and evidence	Journal of Economic Behavior and Organization	498	15.56
10	Lang and Lundholm (2000)	Voluntary Disclosure and Equity Offerings: Reducing Information Asymmetry or Hyping the Stock?	Contemporary Accounting Research	471	18.84
11	Courtney et al. (2017)	Resolving Information Asymmetry: Signaling, Endorsement, and Crowdfunding Success	Entrepreneurship: Theory and Practice	444	55.50
12	Chiappori and Salanie (2000)	Testing for asymmetric information in insurance markets	Journal of Political Economy	444	17.76
13	Krishnaswami and Subramaniam (1999)	Information asymmetry, valuation, and the corporate spin-off decision	Journal of Financial Economics	422	16.23
14	Brown and Hillegeist (2007)	How disclosure quality affects the level of information asymmetry	Review of Accounting Studies	368	20.44
15	Cohen and Dean (2005)	Information asymmetry and investor valuation of IPOs: Top management team legitimacy as a capital market signal	Strategic Management Journal	365	18.25
16	Leuz (2003)	IAS versus U.S. GAAP: Information asymmetry-based evidence from Germany's new market	Journal of Accounting Research	356	16.18
17	Mishra et al. (1998)	Information asymmetry and levels of agency relationships	Journal of Marketing Research	354	13.11
18	Cho et al. (2013)	Corporate social responsibility performance and information asymmetry	Journal of Accounting and Public Policy	352	29.33
19	Frankel and Li (2004)	Characteristics of a firm's information environment and the information asymmetry between insiders and outsiders	Journal of Accounting and Economics	352	16.76
20	Ivashina (2009)	Asymmetric information effects on loan spreads	Journal of Financial Economics	348	21.75

3.8. Keywords Co-occurrence Analysis

The last research question focused on the top keywords in information asymmetry studies. Author keywords are crucial for academics seeking research trends. Wen and Huang (2012) assert that author keyword analysis is crucial for evaluating the development of research topics. Table 13 shows the most active author keywords used in information asymmetry studies. Topping the list is "Information Asymmetry" itself, underscoring its fundamental significance as the primary subject of inquiry, with 879 occurrences, constituting a substantial portion of the overall keyword distribution.

Next, by using the co-occurrence of author keywords in the VOSviewer software, we can analyze the network visualization of author keywords and their clusters. With a minimum of five occurrences of a keyword, using fraction counting methods, out of the 2,846 keywords, 114 met the threshold. Figure 4 displays the keywords produced by the VOSviewer software, with the connection line's color, size, font, and thickness. The figure illustrates the correlation strength between terms, which is also represented by the corresponding hue. If two keywords are on the same line inside the data set, they are considered co-occurring. The closeness of two terms in this graphic display indicates the intensity of their relationship. A shorter gap between two keywords indicates a more robust relationship between them. Figure 4 shows the author keywords divided into 13 clusters. The most significant keywords in these clusters were information asymmetry, adverse-selection costs, moral hazard, corporate governance, bid-ask spreads, signaling, capital structure, agency theory, disclosure, and emerging markets.

Contradicting this concentration of significant keywords, the figure also reveals several regions with fewer connections and lower node weights, suggesting underexplored topics that present opportunities for future research. One such area is the intersection of incentive compatibility and incomplete contracts. These keywords, located on the periphery of the map, have limited connections, indicating a gap in research focusing on how contractual arrangements can be designed to address information asymmetry effectively. Another underexplored area is the interplay between public goods and trust. With fewer connections, this suggests a need for comprehensive studies examining how these factors interact with information asymmetry, which could enhance our understanding of these dynamics in economic and social contexts. Emerging markets also present a research opportunity, as the node for this keyword is not as connected as others, pointing to a need for more studies on information asymmetry in these contexts. Additionally, insurance and screening are less explored, indicating potential research avenues for understanding how these mechanisms can address information asymmetry in various sectors.

By identifying these less concentrated areas, researchers can focus on these gaps to advance the understanding of information asymmetry in diverse contexts. Addressing these underexplored topics could yield valuable insights and contribute to a more comprehensive body of knowledge in the field. In summary, while the map highlights well-researched areas within information asymmetry, it also points to several gaps that represent fruitful avenues for future research. By targeting these gaps, researchers can contribute to a more nuanced understanding of information asymmetry and its implications across different domains.

Figure 5 depicts the overlay visualization of the author's keywords that could determine research topic trends. The keywords that appeared were grouped by year. The analysis was carried out for the last 10 years in this research by dividing it into three periods. Blue represents period I from 2010 to 2013, green represent period II from 2014 to 2017, and red represents period III from 2018 to 2020. The figure illustrates the progression of keywords throughout time. The latest keywords appeared during period III such as "investment efficiency", "leverage" and "firm value", indicating ongoing or emerging areas of research interest in the study of information asymmetry. Keywords such as "information asymmetry", "adverse-selection costs", and "agency theory" have relatively appeared during period II. Conversely, keywords like "trading volumes", "political connections", and "equilibrium" have appeared in period I, suggesting that they may represent more established or foundational concepts in the field. Some keywords exhibit a wide range of publication years, indicating diverse research interests or evolving trends within specific topics. For example, "financial markets" and "underpricing" have publication years spanning from 2000 to 2016, suggesting ongoing research and potential shifts in focus over time. Overall, by analysing the average publication years associated with these keywords, researchers can gain a better understanding of the chronological evolution of research topics within the domain of information asymmetry and identify current trends or areas ripe for further investigation.

Table 13. Top 10 Keywords.

No.	Keywords	Occurrences	Percentage (%)
1	Information Asymmetry	879	43.09
2	Adverse-selection Costs	61	2.99
3	Moral Hazard	40	1.96
4	Corporate Governance	40	1.96
5	Bid-Ask Spreads	37	1.81
6	Signalling	36	1.76
7	Capital Structure	23	1.13
8	Agency Theory	23	1.13
9	Disclosure	20	0.98
10	Emerging Markets	19	0.93

Figure 4. Network Visualisation of Co-Occurrence of Author's Keywords.

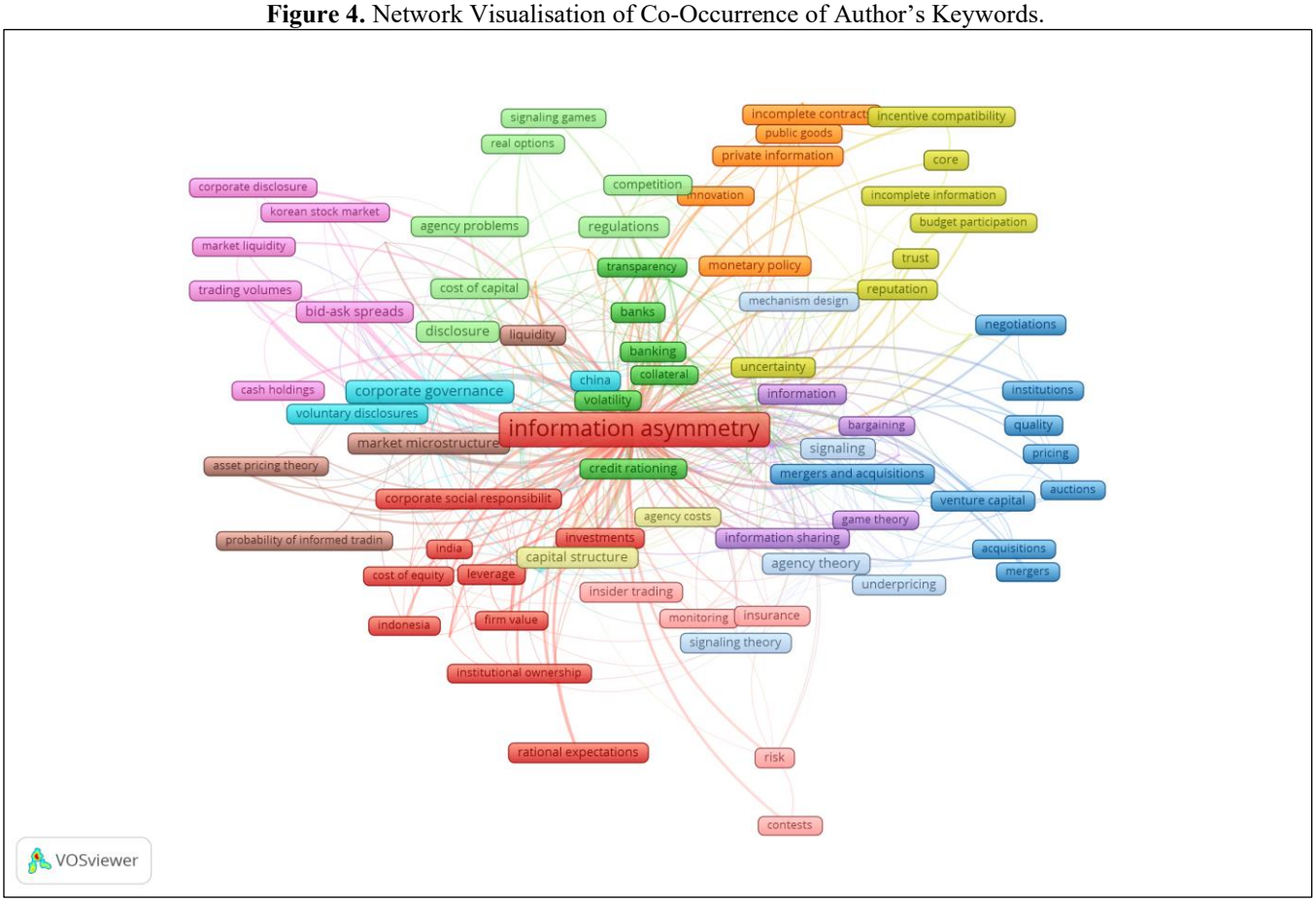
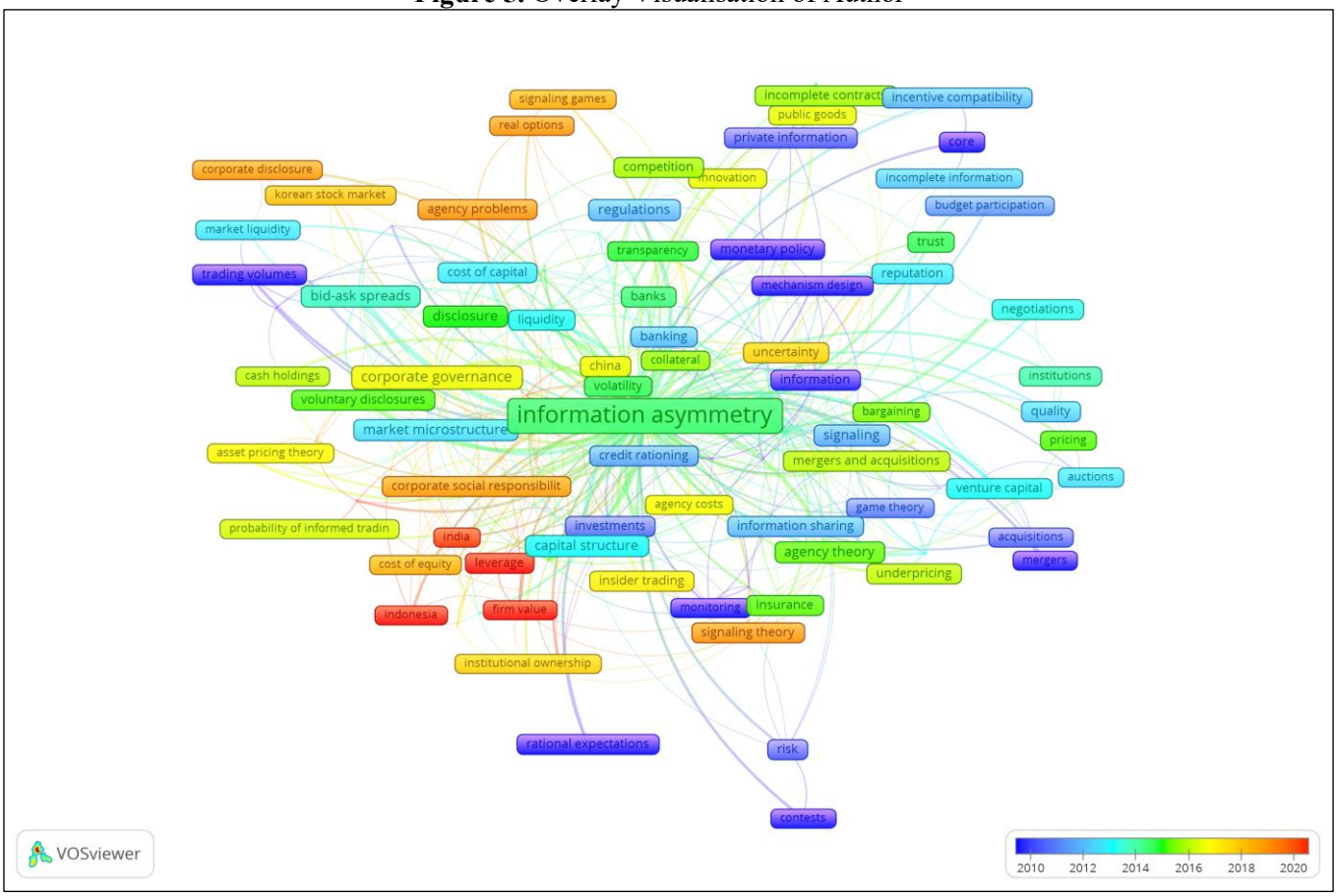


Figure 5. Overlay Visualisation of Author'



4. CONCLUSION

Our study set out to examine the bibliometric characteristics of information asymmetry research. We aimed to identify trends, patterns, and influential factors shaping scholarly output in this domain. Key research questions included understanding the publication landscape, identifying prolific institutions and countries, analysing source titles, examining highly cited documents, and exploring keyword co-occurrence patterns. Our bibliometric analysis of information asymmetry research yielded several noteworthy findings that provide valuable insights into the scholarly landscape of this field. Firstly, we observed a significant concentration of research output in the United States, with institutions such as the University of Pennsylvania and New York University emerging as prolific contributors. This dominance underscores the robust scholarly ecosystem and research infrastructure supporting information asymmetry studies in the United States. Furthermore, our analysis revealed the emergence of China as a promising player in the field, with a steadily increasing publication output and notable impact metrics. This trend suggests a shifting global dynamic in information asymmetry research, with diverse geographical regions contributing to the advancement of knowledge in this area.

Our study makes several significant contributions to the field of information asymmetry research. By conducting a rigorous bibliometric analysis, we offer a comprehensive view of the current state of research, identifying the most productive institutions, top contributing countries, and highly cited documents. This synthesis provides researchers with a clear understanding of the key players and seminal works that shape the discourse on information asymmetry. Our analysis revealed noteworthy trends, such as evolving research themes and increasing international collaborations, indicating that the future of information asymmetry scholarship may hinge on interdisciplinary approaches and cross-border partnerships. These insights collectively deepen our understanding of the field and lay groundwork for new investigations into underexplored facets of information asymmetry.

The implications of our findings extend to various stakeholders, including corporate decision-makers, policymakers, and investors. Understanding the prevailing trends and research foci can help executives make informed choices regarding disclosure practices, risk management, and strategic communication. For instance, insights into “adverse-selection costs” and “agency theory” can inform corporate governance structures and financing decisions, enhancing transparency and mitigating information asymmetry risks. Policymakers can leverage these findings to shape effective regulations that address information asymmetry challenges in financial markets, mergers and acquisitions, and initial public offerings. By aligning regulatory frameworks with the latest research insights, stakeholders can collectively promote market efficiency and mitigate adverse effects arising from information asymmetry.

By identifying these less concentrated areas, researchers can focus on these gaps to advance the understanding of information asymmetry in diverse contexts. Addressing these underexplored topics could yield valuable insights and contribute to a more comprehensive body of knowledge in the field. In summary, while the map highlights well-researched areas within information asymmetry, it also points to several gaps that represent fruitful avenues for future research. By targeting these gaps, researchers can contribute to a more nuanced understanding of information asymmetry and its implications across different domains.

Although our analysis offers valuable perspectives, several limitations warrant consideration. We concentrated our dataset on subject areas within Economics, Econometrics, and Finance; Business, Management, and Accounting; and Social Sciences, potentially overlooking relevant work in other disciplines such as computer science, psychology, or law. Additionally, the exclusive reliance on Scopus may limit the scope of the findings, since important contributions could reside in other databases or publication formats. Our emphasis on quantitative metrics, while useful for tracking publication trends, may also obscure qualitative nuances, such as methodological rigor or contextual differences across regions and industries. Consequently, future studies might include a broader range of databases, adopt qualitative methods (e.g., expert interviews, case studies), and delve more deeply into context-specific applications of information asymmetry. Such expanded efforts could illuminate, for example, how emerging technologies like blockchain or AI transform information flows and influence principal–agent relationships.

Taken together, these recommendations point to a rich array of opportunities for advancing the field. By targeting lesser-explored topics, integrating diverse theoretical frameworks, and embracing multidisciplinary lenses, researchers can refine our understanding of information asymmetry and develop targeted interventions to mitigate its consequences. Ultimately, these endeavours hold considerable promise for enhancing both theoretical sophistication and practical utility in addressing one of the most enduring and pervasive challenges in economic and social systems.

DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES

During the preparation of this work the author(s) used ChatGPT in order to do the paraphrasing. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

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