

Overview of Index Mutual Funds: A Bibliometric Review with Special Focus on India

Rishu Kumar

(Corresponding Author)

Research Scholar

Department of Economics

Banaras Hindu University, Varanasi

Uttar Pradesh

rishukumar@bhu.ac.in

Manisha Ashish Mehrotra

Professor

Department of Economics

Banaras Hindu University, Varanasi

Uttar Pradesh

Abstract

This study attempts a bibliometric review of the available literature on index mutual funds extracted from the Scopus database. Biblioshiny R's software is employed in bibliometric analysis to envision patterns of relevant keywords. Keywords such as "index fund" OR "index mutual fund" are used to cover the relevant literature. The study covers the period between 1978 and 2024. The study reveals that index fund research is still growing with significant scope for further exploration. The USA leads in all elements of the bibliometric report, while India lags behind. Indian journals and authors should enhance quality and quantity to gain global recognition and indexing.

Keywords: index funds, mutual funds, passive funds, benchmark funds

1. Introduction

For investors looking for long term investment option, a less risky form of investment, Index Funds today are a source of investment. The index funds' success is subject to their low volatility and the selection of the index (NSE of India). An index mutual fund value should change with the benchmark index that it replicates, as far as possible. So, in the Indian context, investors who invest in an index mutual fund that copies a broad index such as the Sensex or Nifty can hope that their portfolio in the market will take part in a bull rally. So, a significant correction in the stock market will generate an advantage for investors who invest in an index mutual fund (Sarkar et al 2013). The first Index

fund was launched in India in June 1999, but they had a relatively small AUM due to limited awareness and investor interest. The total AUM of Index Funds on Nifty 50 stands at Rs. 16,105 Cr as of November 30, 2021, as against Rs. 4,515 Cr as of September 30, 2019, which has grown at ~80% CAGR (NSE India). This growth highlights the increasing investor interest in passive investment strategies in general and index funds in particular.

But the literature on index mutual funds is scarce when a narrowed-down search on Scopus to articles with titles containing keywords “index fund” OR “index mutual fund” only 148 articles were found, with the most significant contributions from the United States with 68 contributions and India with just 8 contributions. This highlights my first motivation to take up this study. The second motivation is the utility of the bibliometric study for the academic and research community in shaping the future course. The third is to fill the gap between the first and second motivation. The trend in the index fund growth story in India highlights the need to take up this study.

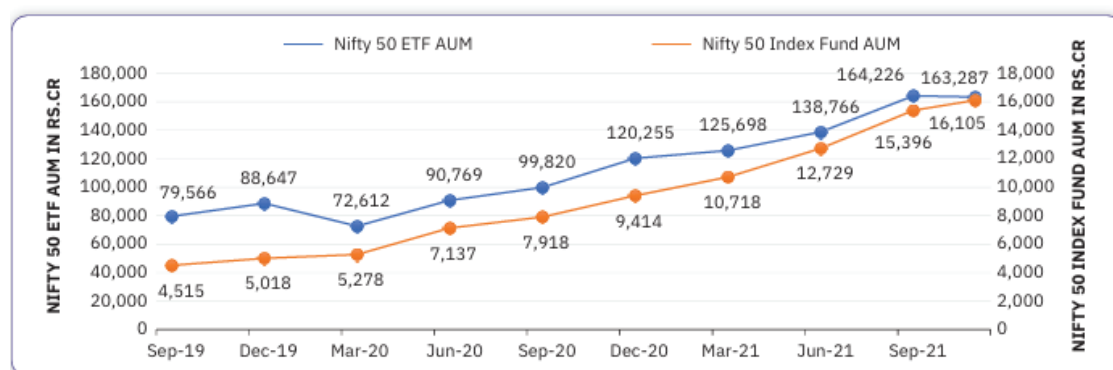


Figure 1. Growth Trends of Nifty ETF and Nifty Index Fund

Source: 25_Years_Journey_of_Nifty50_2022-01 (nsearchives.nseindia.com)

2. Objectives

- To study the current research trend in index mutual funds?
- To identify the most influential sources, authors and documents in this research domain?
- To identify the dominating countries in this domain of mutual fund study?
- To study the conceptual structure and intellectual structure in the domain of index mutual fund research?

- e) To study the scope of future research on the basis of the bibliometric report generated by Biblioshiny?

3. Research Methodology

Bibliometric analysis is a prevalent, rigorous and acceptable method to explore and analyse a huge quantity of scientific data. It helps us to take out the evolutionary gradations of an explicit field, while bringing into light the evolving areas in that field (Donthu et al, 2022). Bibliometric methods or “analysis” are now validated as a scientific specialisation of library sciences. These are integral to the methodology of research appraisal within the scientific and applied fields (Ellegaard and Wallin, 2015). In the market for multidisciplinary scientific literatures Scopus is the largest database (Kuchi, 2004), and this is the reason why the Scopus database is being used. R is employed for the bibliometric analysis to show patterns of relevant keywords related to index funds using various visualisation effects and an analysis table, graphs and diagrams.

Search Strategy and Selection Criteria

To take into consideration all the relevant scientific publications and reduce the chances of omission of documents from the index mutual funds, keywords that are inclusive and general to cover the overall documents are used.

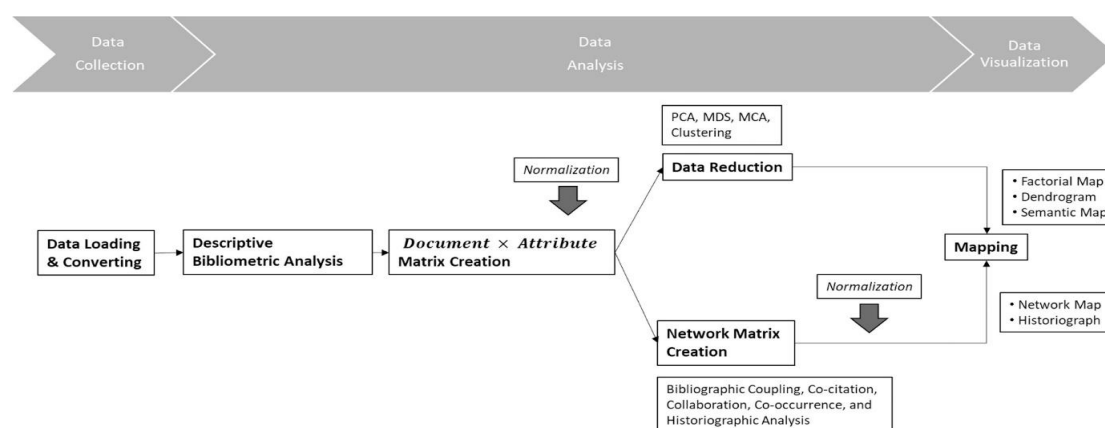


Fig. 2. bibliometrix and the recommended science mapping workflow.

Source: As outlined by Aria and Cuccurullo (2017)

Keywords which are used to cover the relevant available literature are “index fund” OR “index mutual fund”. After entering these keywords into the search field, 583 documents were retrieved from the database of Scopus till Feb 9, 2025. The study covers the period between 1978 and 2024, and documents retrieved till 2024 were 583. Further, the first inclusion criterion used in the study is

“Research documents of the domain Business, Management, and Accounting and Economics, Econometrics, and Finance and decision sciences in order to limit the database search to relevant disciplines. Next criteria used to limit our search to publications in the English language only. Other filters available in these two categories were excluded to keep our study relevant. 475 documents covering scientific publications from 1978 to 2024 were used for this study after following the inclusion criteria. Biblioshiny provided by R is used to conduct this bibliometric study.

Table 1. Summary of bibliometric analysis based on Scopus

Source	Scopus	No. of Items
Timespan		1978-2024
Keywords	“index fund” OR “index mutual fund”	
Document Type	Total Contribution	475
	Article	390
	Book	8
	book chapter	34
	conference paper	17
	conference review and note	1+2
	Review	23
Language	English	475
Source type	Journals, Books, etc	241 (journal, books, conference proceedings and book series)

Source: Biblioshiny Report generated with the help of Scopus database

4. Results, Analysis, and Discussion

Trend in research and scientific productivity

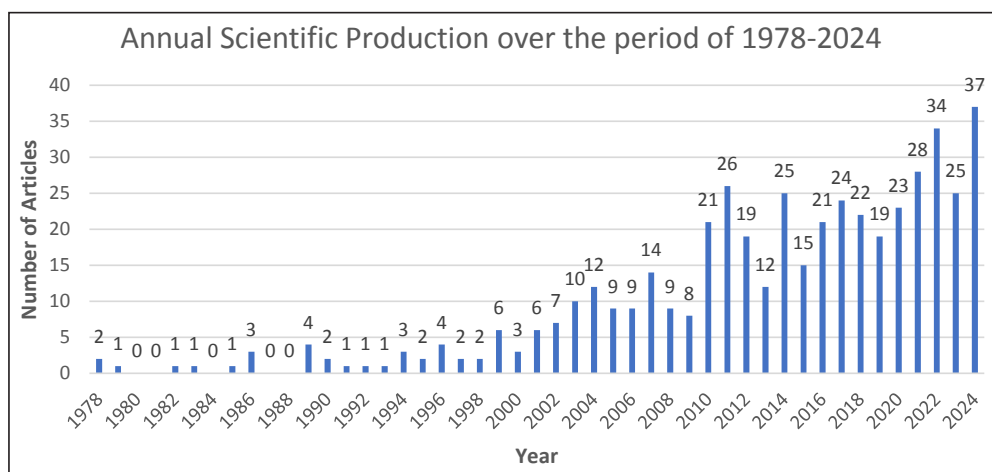


Figure 3. Annual scientific production.

Source: Author's Own Work on the Basis of Biblioshiny Report using Scopus database

Examining the first research question regarding index mutual fund trends, Figure 3, which is drawn in Excel on the basis of the report provided by Biblioshiny, the volume of annual production increased significantly from 2010. Almost approx. 74% articles were produced after 2010, implying that most of the intellectual discussion in the field of index mutual funds happened after 2010. Fundamentally, it can be said that index mutual funds got their attention after the 2008 financial crisis.

Most Influential Sources, Authors and Documents

Table 2. Most Influential Sources

Source	h_index	g_index	m_index	TC	NP
Journal of portfolio management	11	19	0.393	399	22
Journal of banking and finance	10	12	0.294	342	12
Review of financial studies	8	9	0.5	531	9
Financial analysts journal	6	11	0.2	235	11
Managerial finance	6	9	0.2	97	16
Financial management	5	5	0.217	189	5
Journal of finance	5	5	0.167	1661	5
Journal of financial markets	5	6	0.238	270	6
Journal of financial research	5	6	0.125	97	6
Applied economic perspectives and policy	4	4	0.25	436	4

Source: Biblioshiny Report generated with the help of Scopus database

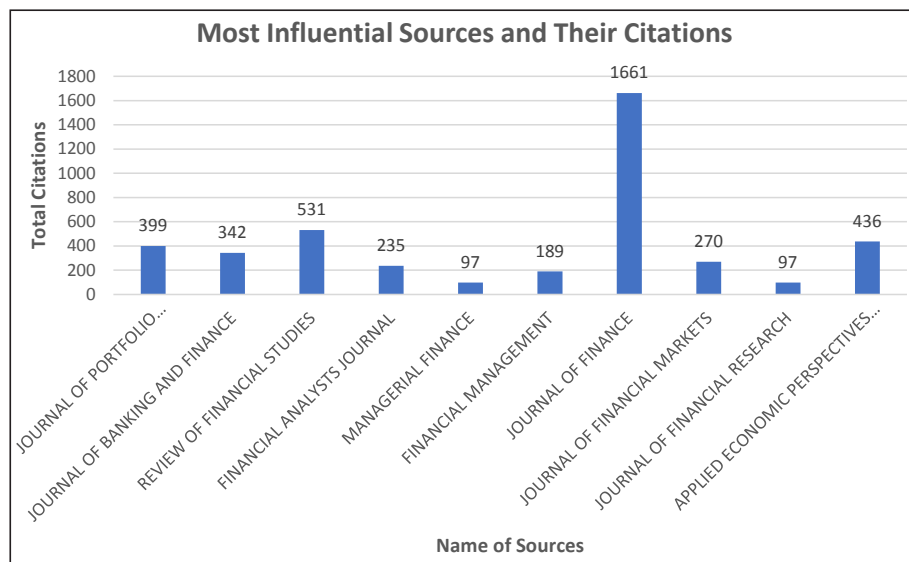


Figure 4. Most Influential Sources

Source: Author's Own Work on the Basis of Biblioshiny Report using Scopus database

This part of the article addresses the second research question about the most influential sources, most influential authors and the most influential documents in this domain of research. Table 2 and Figure 4 summarise the 10 most influential sources relating to index mutual funds scientific production. The most influential sources are ordered in sequence of their *h_index* starting from top, along with their *g_index*, *m_index*, TC (total citations) and NP (Number of Publications). *H_index* and *g_index* tell us about the overall impact of the journal, and *m_index* is calculated taking into account the age of the journal. TC shows the citation impact, and NP tells us about the overall productivity of a journal. Journal of Portfolio Management, Journal of Banking and Finance and Review of Financial Studies are the top 3 journals in this domain, having *h_index* 11, 10 and 8, respectively. Journal of Finance got the highest number of citations of 1661, which is significantly higher than all journals in the list. Figure 3 shows the most influential journals sequenced according to *h_index* and the total citations they received. As per the *g_index* of respective journals Journal of Portfolio Management, the Journal of Banking and Finance, and the Financial Analysts Journal are the three most influential sources with 19, 12 and 11 *g_index*, respectively. According to NP (i.e. number of publications), Journal of Portfolio Management, Managerial Finance and Journal of Banking and Finance are the most influential sources in this domain, with 22, 16 and 12 publications, respectively.

Journal of Portfolio Management is published by Portfolio Management Research and is a United States based Journal. Journal of Banking and Finance is published by Elsevier B.V. and is based in the Netherlands. Review of Financial Studies is published by Oxford University Press and is based in the United Kingdom. Financial Analysts Journal is published by Taylor and Francis Ltd. and is based in the United Kingdom. Managerial Finance is published by Emerald Group Publishing Ltd. and is based in the United Kingdom. Financial Management is published by Wiley-Blackwell and is based in the United States. Journal of Finance is published by Wiley-Blackwell Publishing Ltd and is based in the United Kingdom. Journal of Financial Markets is published by Elsevier B.V. and is based in the Netherlands. Journal of Financial Research is published by Wiley-Blackwell Publishing Ltd and is based in the United Kingdom. Applied Economic Perspectives and Policy is published by John Wiley and Sons, Inc. and is based in the United States. This information about countries and publishers is collected from www.scimagojr.com. It can be said based on the above information that India is nowhere in the top 10 sources of index mutual fund research publications. None of the publishing houses which

are publishing these journals are from India. In Scimago in 2023, for which data was available, there were 1645 journals for the Business, Management and Accounting domain, out of which only 24 belong to India, and among them, only 1 journal is Q1, and 7 journals are Q2. The USA has 380 journals, and the UK has 679 Journals of which most are Q1 and Q2. This position of India indicates that India has a long way to go both in terms of quantity and quality of scientific production and its sources.

Table 3. Most Influential Authors

Author	h_index	g_index	m_index	TC	NP
IRWIN SH	12	13	0.75	987	13
GRUBER MJ	9	17	0.243	1760	17
SANDERS DR	9	10	0.563	822	10
ELTON EJ	8	14	0.216	775	14
FRINO A	5	5	0.2	182	5
GALLAGHER DR	5	6	0.2	182	6
BLAKE CR	4	5	0.133	462	5
BOGLE JC	4	7	0.167	81	7
BUSSE JA	4	5	0.182	183	5
ADAMS JC	3	3	0.188	90	3

Source: Biblioshiny Report generated with the help of Scopus database

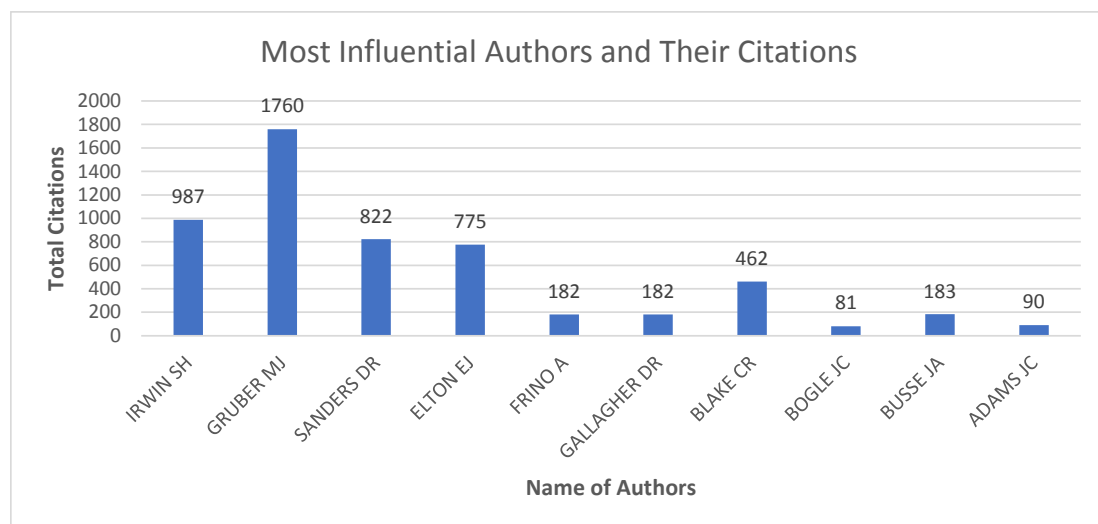


Figure 5. Most Influential Authors

Source: Author's Own Work on the Basis of Biblioshiny Report using Scopus database

Table 3 and Figure 5 summarise the 10 most influential authors relating to the scientific production of index mutual funds. The most influential authors are ordered in sequence of their h_index starting from top, along with their g_index, m_index, TC (total citations) and NP (Number of Publications). H_index and g_index tell us about the overall impact of an author, and m_index is calculated taking into account the active years of an author. TC shows the citation impact, and NP tells us about the overall productivity of an author. Irwin, Gruber and Sanders are the top 3 authors in this domain, having h_index 12, 9 and 9, respectively. Gruber got the highest number of citations of 1760, which is significantly higher than all other authors in the list. Figure 4 shows the most influential authors sequenced according to h_index and the total citations they received. As per the g_index of respective authors, Gruber, Elton and Irwin are the three most influential authors with 17, 14 and 13 g_index, respectively. According to m_index, Irwin is the most influential author, followed by Sanders and Gruber. According to NP (i.e. number of publications), Gruber, Elton and Irwin are the most influential authors in this domain with 17, 14 and 13 publications, respectively.

On the basis of the top 10 documents identified by Biblioshiny, identification of affiliated countries of the top 10 most influential authors is carried out to identify the academic strength of the country in terms of their h_index, g_index, m_index, TC and NP. Below is the list.

1. Irwin, S.H.-United States of America
2. Gruber, M.J.- United States of America
3. Sanders, D.R.-United States of America
4. Elton E.J.-United States of America
5. Frino, A.-Australia
6. Gallagher, D.R.-Australia
7. Blake, C.R.-United States of America
8. Bogle, J.C.-United States of America

9. Busse, J.A.-United States of America

10. Adams, J.C.-United States of America

In the list of the top 10 most influential authors, it can be seen that 8 out of 10 authors are from the United States of America, and two are from Australia. Bogle, J.C., from the United States of America, was an American businessman who was the founder and CEO of The Vanguard Group and contributed to popularising index mutual funds. He was a giant in the mutual fund field. On the basis of this information, India lags behind in this aspect too. This can be seen as an opportunity by Indian scholars to look into the unexplored aspects of index mutual funds in the Indian context with a higher degree of precision and contribute towards the development of a more robust mutual fund market.

Table 4. Research documents with the highest number of citations

No.	Journal/ Publisher	Author	Article/book	Citations
1	The Journal of Finance	Gruber(1996)	“Another Puzzle: The Growth in Act-ively Managed Mutual Funds”	978
2	The Journal of Finance	Shleifer(1986)	“Do Demand Curves for Stocks Slope Down?”	679
3	Journal of Applied Econometrics	Hansen et al (2011)	“Realized GARCH: a joint model for returns and realized measures of volatility”	420
4	The Journal of Business	Elton et al (1996)	“The Persistence of Risk-Adjusted Mutual Fund Performance”	370
5	Journal of International Money And Finance	Buyuksahin and Robe (2014)	“Speculators, commodities and cross-market linkages”	348
6	Handbook of the Eco-nomics of Finance	Barber and Odean (2013)	“Chapter 22 - The Behavior of Indi-vidual Investors”	327
7	The Quarterly Journal of Economics	Ippolito (1989)	“Efficiency with Costly Information: A Study of Mutual Fund Perfor-mance, 1965–1984”	288
8	The Quarterly Journal of Economics	Hortacsu and Syverson (2004)	“Product Differentiation, Search Costs, and Competition in the Mu-tual Fund Industry: A Case Study of S and P 500 Index Funds”	277
9	The Journal of Business	Lynch and Mendenhall (1997)	“New Evidence on Stock Price Ef-fects Associated with Changes in the S and P 500 Index”	267
10	Applied Economics Per-spectives and Policy	Irwin and Sand-ers (2011)	“Index Funds, Financialization, and Commodity Futures Markets”	263

Source: Biblioshiny Report generated with the help of Scopus database

Table 4 shows the most influential top 10 documents in the field of index mutual funds. This table mentions the most influential documents along with their respective authors, sources (journal in which they appeared) and their citation impact. “Another Puzzle: The Growth in Actively Managed Mutual Funds” is the most influential document with the highest number of citations, 978, followed by “Do Demand Curves for Stocks Slope Down?” with 679 citations, and “Realised GARCH: a joint model for returns and realised measures of volatility” at number 3 with 420 citations. On the basis of the top 10 documents identified by Biblioshiny, identification of affiliated countries of contributing authors is carried out to identify the academic strength of the country in terms of the top documents produced by their authors. Below is the list.

1. Gruber (1996) - United States of America
2. Shleifer (1986) - United States of America
3. Hansen et al. (2011) - United States of America, Denmark, China
4. Elton et al. (1996) - United States of America
5. Buyuksahin and Robe (2014) - United States of America
6. Barber and Odean (2013) - United States of America
7. Ippolito (1989) - United States of America
8. Hortacsu and Syverson (2004) - United States of America
9. Lynch and Mendenhall (1997) - United States of America
10. Irwin and Sanders (2011) - United States of America

On the basis of the above information, it can be said that the United States of America is leading in this aspect, too, as all the documents in the list of the top 10 most influential documents are produced by authors who are affiliated with the United States of America. The most developed financial system in the United States of America can be attributed to the focus of its authors on research and development of finance domain. This can be a lesson to India to focus on research and development in this discipline, too, on the part of both the academic community and government.

The most Dominating Countries in Research on Index Mutual Funds

This part of the article addresses this research question. This article tried to identify the most dominant countries in research on three bases. These three bases are Countries' Scientific Production, Countries' Annual Production over Time and Number of Citations they received. The reports on these three bases are generated through Biblioshiny, whose appearances are modified in Excel to give better visual effects to the table and pictures.

Table. 5 Counties' Scientific Production

Country	Freq	Country	Freq	Country	Freq	Country	Freq	Country	Freq
Usa	488	Netherlands	16	South africa	7	New_zealand	3	Qatar	2
China	78	Chile	12	Israel	6	Norway	3	Saudi arabia	2
Australia	48	Sweden	12	Czech_re-public	5	Slovakia	3	Serbia	2
India	41	Italy	11	Portugal	5	South korea	3	Bangladesh	1
Uk	41	Japan	10	Belgium	4	Thailand	3	Ireland	1
Canada	30	Singapore	10	Finland	4	Tunisia	3	Lithuania	1
Spain	25	Turkey	9	Pakistan	4	Austria	2	Nigeria	1
France	22	Colombia	8	Denmark	3	Cyprus	2	Philippines	1
Germany	21	Brazil	7	Greece	3	Mexico	2	Poland	1
Switzerland	17	Indonesia	7	Malaysia	3	Morocco	2	Uae	1

Source: Biblioshiny Report generated with help of Scopus database

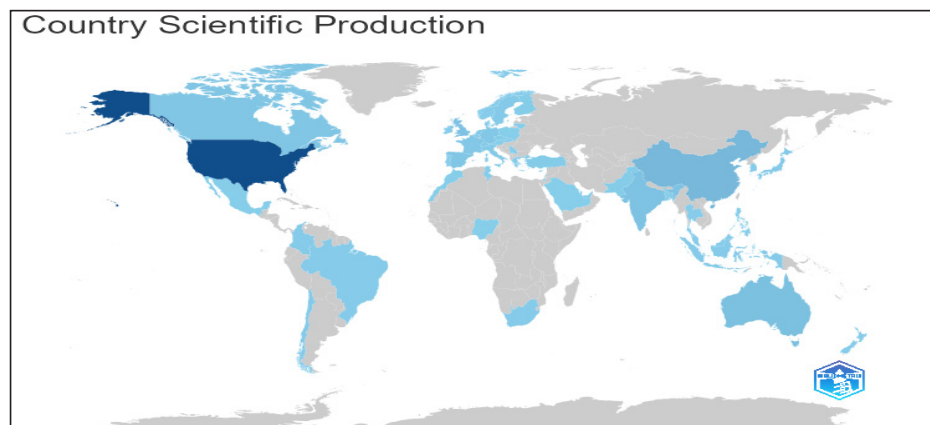


Figure. 6 Countries' Scientific Production

Source: Biblioshiny Report generated with the help of Scopus database

Table 5 and Figure 6 show the countries' scientific production over time on the basis of the Scopus database. The top 5 countries have most of the scientific contributions in this domain. The next 10 countries shown little interest in this research area, which is evident from their scientific production. Figure 6 counties with dark blue colour show significantly higher production, light blue colour shows less scientific production and countries with grey colour show very little or no production. Figure 6 and Table 5 is USA leads the research in the area of index mutual fund, much higher than all countries in the list, which is also depicted by its dark blue colour in the map. Counties like India, the UK, Australia and China are major contributing nations, with India least among these five countries.

Table. 6 Countries Annual Production over Time till 2010

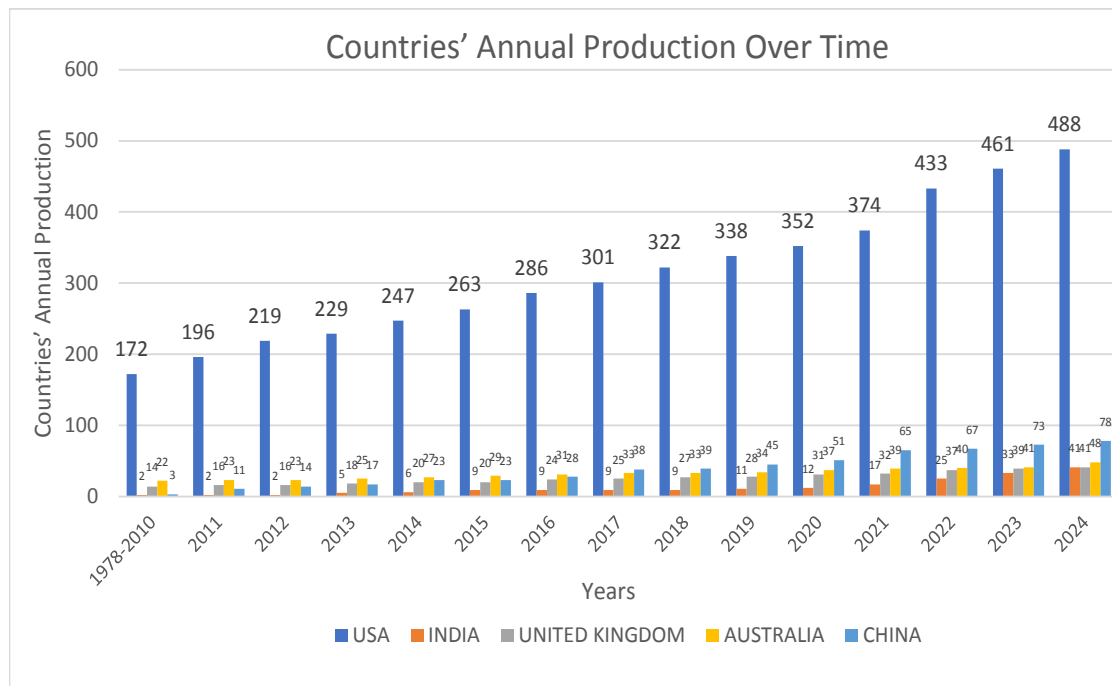
YEAR	USA	INDIA	UNITED KINGDOM	AUSTRALIA	CHINA
1978	3	0	0	0	0
1991	17	2	0	0	0
1992	19	2	0	0	0
1993	19	2	2	0	0
1994	22	2	2	0	0
1995	24	2	2	0	0
1996	25	2	2	0	0
1997	26	2	2	0	0
1998	29	2	2	0	0
1999	39	2	2	1	0
2000	43	2	2	1	0
2001	51	2	2	3	0
2002	63	2	2	6	0
2003	72	2	3	6	0
2004	85	2	5	9	1
2005	94	2	7	12	1
2006	106	2	7	15	2
2007	131	2	7	19	3
2008	139	2	7	19	3
2009	142	2	7	22	3
2010	172	2	14	22	3

Source: Biblioshiny Report generated with the help of Scopus database

Table. 7 Countries Annual Production over Time

YEAR	USA	INDIA	UNITED KINGDOM	AUSTRALIA	CHINA
1978-2010	172	2	14	22	3
2011	196	2	16	23	11
2012	219	2	16	23	14
2013	229	5	18	25	17
2014	247	6	20	27	23
2015	263	9	20	29	23
2016	286	9	24	31	28
2017	301	9	25	33	38
2018	322	9	27	33	39
2019	338	11	28	34	45
2020	352	12	31	37	51
2021	374	17	32	39	65
2022	433	25	37	40	67
2023	461	33	39	41	73
2024	488	41	41	48	78

Source: Author's Own Work on Basis of Biblioshiny Report generated with the help of Scopus database

**Figure 7. Countries' Annual Production Over Time**

Source: Author's Own Work on the Basis of Biblioshiny Report using Scopus database

Table 7 and Figure 7 shows five most dominating countries in research on index mutual funds on the basis of the country's annual production over time.

The USA is the most dominating country in index mutual fund research. From the above table and figure, we can see that for around 15 years, there was no contribution from the UK, Australia and China in the Scopus database. India, too, contributed very little. Globally, annual scientific production from all countries increased significantly after 2000, and after that, we see a sharp increase from all these countries. The USA is the most dominating followed by Australia, China, the UK and India. The USA is much higher in scientific production in comparison to all the following countries. India has the lowest recent annual production, even though India started producing academic research in this field much earlier than the UK, Australia and China. This trend is evidence of the highly developed and focused financial interest of researcher of USA leading towards its developed and efficient financial market.

Table 8. Most Cited Countries

Country	Total Citations	Average Article Citations
USA	4585	36.1
UNITED KINGDOM	361	25.8
CHINA	208	9.9
CANADA	152	21.7
NETHERLANDS	133	33.2
SWITZERLAND	123	17.6
SINGAPORE	120	40
INDIA	111	7.9
GERMANY	92	13.1
PORTUGAL	76	76

Source: Biblioshiny Report generated with help of Scopus database

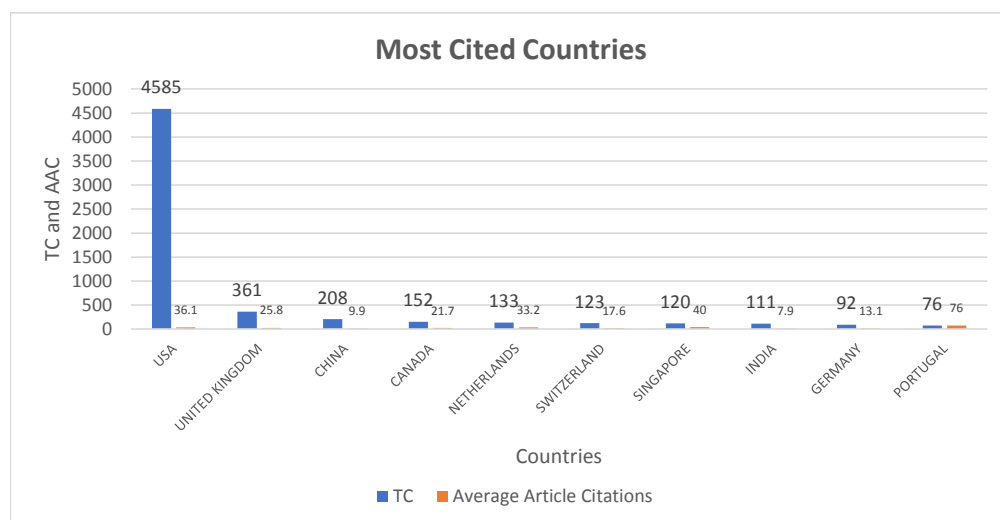


Figure 8. Most Cited Counties and their Total Citations and Average Article Citations

Source: Author's Own Work on Basis of Biblioshiny Report using Scopus database

Table 8 and Figure 8 show the most cited countries in the domain of index mutual fund research. The table and graph show the Total Citations and Average Article Citations received by the top 10 most cited countries in this research domain. The USA too is leading here, followed by the UK and China. India is in 8th position. This also sheds light on the quality of work done by these countries and their relevance in the current research trends, so that they are being frequently cited. The gap between the USA and the rest of the countries is significantly higher, which implies that the USA is a leader in this field of research.

The Conceptual Structure over Time

The conceptual structure of a field identifies the main themes, subthemes, and patterns of the area (Khare and Jain2022). Conceptual structure helps to identify trending topics, main research themes and emerging areas using two methods, namely the network approach and the factorial approach. In the network approach which is used in this study, the Co-occurrence Network and Thematic Map are used in this study.

Co-Word Network

Relationships between keywords on the basis of their co-occurrence in the research papers are explained through Co-Word Network analysis. Larger nodes imply higher frequency and importance of keywords, whereas a thicker connection between nodes tells how strong the relationship is between concepts.

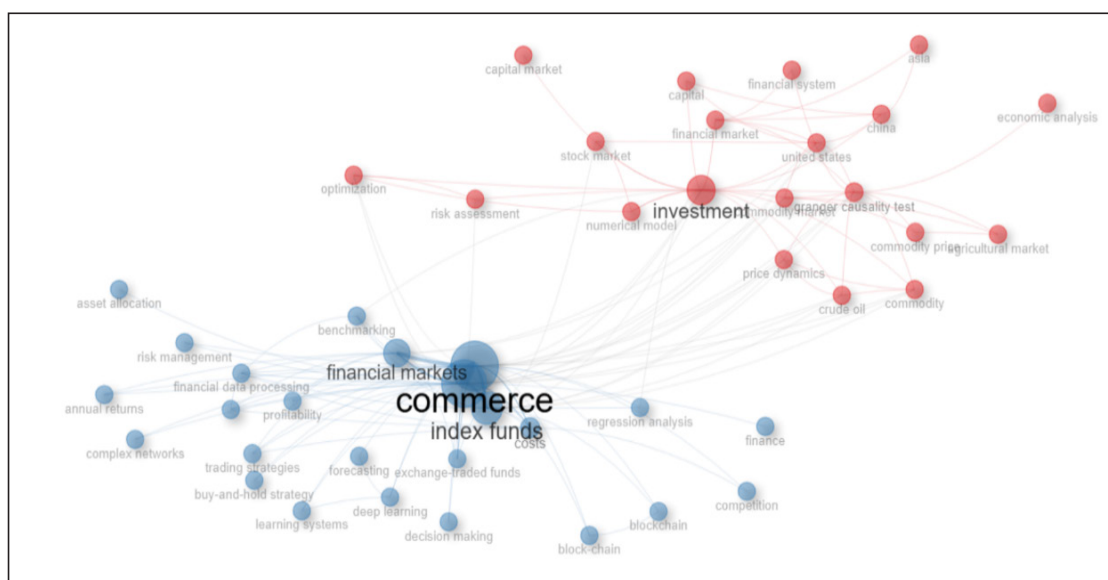


Figure 9. Co-Word Network between Keywords

Source: Biblioshiny Report generated with the help of Scopus database

Co-Word Network is divided into two major clusters of blue and red colours, which can be seen in Figure 9. The focus of the blue cluster is on topics like financial market, commerce index funds, benchmarking, block-chain and costs. Topics like commerce, financial market and index have larger nodes which indicate that these are central research themes. Red cluster delves into the themes like investments, commodities, commodity pricing and economic analysis. Investment is the most prominent theme in this cluster, highlighted by a thicker cluster. Remaining themes like price dynamics, stock market, crude oil, etc., appear to be of similar significance.



Figure 10. Co-Word Network Density

Source: Biblioshiny Report generated with the help of Scopus database

Figure 10 shows the Co-Word Co-occurrence Density Visualisation, which helps to identify central themes in this domain of this research and the themes that are not so frequent in this literature. Darker region shows the central theme of the domain, as keywords falling into the darker region are highly co-occurring keywords, while the lighter region shows less frequent co-occurring keywords, which are less discussed in the literature. Commerce, index fund, financial market and investment are the core focus of the literature. ETFs, forecasting, profitability, cost, and Granger causality tests are the trending topics. The presence of the USA, China and Asia shows the geographical focus in the index mutual fund research area.

Thematic Map

Biblioshiny generates a thematic map on basis of database provided to it and categorises research themes based on their centrality (importance) and density (development level) into four quadrant which are Motor Themes (well-developed

and important), Niche Themes (specialized but isolated topics), Basic Themes (important but underdeveloped topics) and Emerging or declining themes (weakly developed and marginal topics).

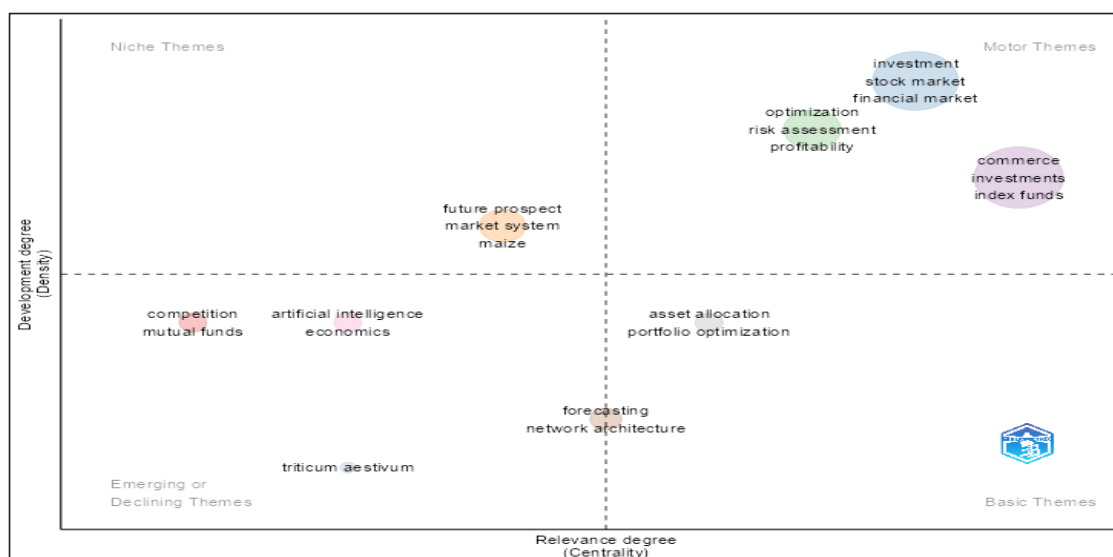


Figure 11. Thematic Map of Index Mutual Funds Scientific Literature

Source: Biblioshiny Report generated with the help of Scopus database

Figure 11 indicates that investment, stock market, financial market, commerce, investments, index funds, optimisation, risk assessment and profitability are the motor themes on which the research fraternity is actively working and are significant for future studies. Topics like asset allocation, portfolio optimisation, and forecasting are the basic themes which highly relevant but less dense. So, these topics need to be explored further to increase their depth. Prospects, market system and maize are the niche theme which are well developed but not connected to the broad theme. Competition, mutual funds, and artificial intelligence are the niche themes.

The Intellectual Structure over Time

Intellectual structure analyses which authors, documents, or sources have had a major influence on the academic field (Khare and Jain, 2022).

Co-citation Network

An author co-citation network helps researchers to identify the most prominent authors in a specific research domain (Lin and Himelboim, 2019). Nodes are individual authors, and connections between them are formed when two authors

irwin s.h. 2011	2	chevalier j. 1997	5
campbell j.y. 1997	2	berk j.b. 2004	5
irwin s.h. 2012	2	warther v.a. 1995	5
aulerich n.m. 2013	2	zheng l. 1999	5
fama e.f. 1993-1	3	elton e.j. 2004	5
markowitz h. 1952-1	3	jensen m.c. 1968-1	6
sharpe w.f. 1991	3	elton e.j. 1993	6
carhart m.m. 1997-3	3	elton e.j. 1996	6
jensen m.c. 1968-2	3	sharpe w.f. 1966	6
berk j.b. 2015	3	grinblatt m. 1989	6
carhart m. 1997-1	4	brown s.j. 1992	6
hortacsu a. 2004	4	fama e.f. 1992	6
sirri e. 1998	4	treynor j.l. 1965	6
cremers m. 2009-1	4	ferson w.e. 1996	6
gruber m. 1996	4	markowitz h.m. 1952	6
edelen r. 1999	4	appel i.r. 2016	7
gruber m.j. 1996	5	appel i.r. 2019	8

Source: Biblioshiny Report generated with the help of Scopus database

Table 9 represents the co-citation network in tabular form. Authors in each cluster are mentioned cluster-wise. Fama, Sharpe, Cremers and Carhart are in cluster 1. Their focus is on mutual fund performance and asset pricing models. Irwin, Campbell and Aulerich are in Cluster 2. They are related to the commodity market and financialization. Fama, Markowitz, Sharpe, Carhart, Jensen and Berk are in cluster 3. Their research is related to portfolio theory and capital markets. Carhart, Hortacsu, Sirri, Cremers, Gruber and Edelen are in cluster 4. Their research is related to fund flow and investment behaviour. Gruber, Carhart, Fama, Shleifer, Sirri, Daniel, Chevalier, Berk, Warther, Zheng and Elton are in cluster 5. Their research is related to mutual fund growth and index funds. Jensen, Elton, Sharpe, Grinblatt, Brown, Fama, Treynor, Ferson, and Markowitz are in cluster 6, related to asset pricing and portfolio performance. Appel I is in clusters 7 and 8 focussing on ownership and governance of passive mutual funds and investment activism.

Limitations

Though the study contributes significantly to the body of knowledge, it has several limitations. This study primarily focused on the Scopus database. There

are other databases of Web of Science, Google Scholar, and PubMed, which are not included in this study. Additionally, the keyword-based approach of the author to article selection may introduce subjectivity bias into the process. The Biblioshiny conduct bibliometric analysis based on the title, keyword and abstract of research papers or articles. It does not look into the whole content of the paper, which has its own underlying disadvantage.

Conclusion and Future Scope

It can be concluded from the study that the discussion on index mutual fund has not reached its saturation yet, which is evident from the growth of literature, which can be seen in the recent decade. This means that index mutual funds need more research in the mutual fund research domain. Journal of Portfolio Management, Journal of Banking and Finance and Review of Financial Studies are the top 3 sources. Even among the 10 most influential sources in the list, we hardly find any Indian sources, which means Indian Journals can promote scientific work in this through a special issue and should focus on their quality improvement to become eligible for top indexes like Scopus and Web of Science. Irwin, Gruber and Sanders are the top 3 authors in this domain, having h_index 12, 9 and 9, respectively. India is also not in the 10 most influential authors and not even in the 10 most influential documents. The USA is the leading country in index mutual fund research, followed by the USA, China, Australia, India, the UK, Canada, Spain, France, Germany and Switzerland. But scientific production by India is ten times lower than USA, which hints that there is a huge scope for Indian scholars to look into mutual fund research from an Indian perspective and explore the unexplored. The USA receiving almost 40 times higher citations indicates that Indian scholars need to work on improving the quality of their research work. The conceptual and Intellectual Structure highlighted in this bibliometric study identified motor, basic, niche and emerging or declining theme which may give insight to the readers about their future research interests in this domain of research. Investment, stock market, financial market, commerce, investments, index funds, optimisation, risk assessment and profitability are the motor themes on which the research fraternity is actively working and are significant for future studies.

Policy Implication

The key takeaways of this bibliometric review carry important lessons for policymakers, regulators, academic institutions, and practitioners, particularly in the Indian context. The edge of the USA in index mutual fund research

and the comparatively low scientific production and citation impact of Indian studies indicate the need for strategic interventions to improve India's research ecosystem in passive investing.

Regulatory bodies such as the Securities and Exchange Board of India (SEBI) and the Ministry of Finance may encourage research on index mutual funds through sponsored research programs, data-sharing initiatives, and collaborations between academia and asset management companies. The role of index funds in promoting low-cost, transparent, and diversified investment avenues is very important, and hence, evidence-based policymaking supported by indigenous research can help strengthen investor protection, product innovation, and market development in India.

Indian journals and universities should work on enhancing research quality and international visibility. None of the Indian journals are among the most influential sources, which suggests the need for taking initiatives for quality improvement, editorial strengthening, and special issues dedicated to passive investing and mutual fund research. Efforts by the Indian journals to align publication standards with international indexing requirements, such as Scopus and Web of Science, can improve the global standing of Indian research output.

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