E3J (Economic Education and Entrepreneurship Journal)
(p-ISSN : 2579-5902) (e-ISSN : 2775-2607)
Volume 7, Number 2, 202-214

Ten-Year Review of The Bibliometry Network in Research on Micro, Small, and Medium Enterprises (MSMeS): 2011–2021

Albet Maydiantoro
Pendidikan Ekonomi, Fakultas Keguruan dan Ilmu Pendidikan,
Universitas Lampung
Email: albet.maydiantoro@fkip.unila.ac.id

Article Info

Article History
Received: November, 2024
Revised: December, 2024
Published: December, 2024

Keywords:
Bibliometric, VOSviewer, MSMEs, Scopus

Doi:http://dx.doi.org/10.23960/E3J/v7.i2.202-214

Abstract

Recently, the attention of economists has been increasing toward MSMEs. However, no research analyzes bibliometrically to assess the development of the latest research trends in the MSME sector. To address this gap, this study reviewed 471 MSME studies published between 2011 and 2021 in the Scopus database using the PRISMA guidelines for review. This study uses descriptive and bibliometric analysis using VOSviewer software to answer four research problems: the total volume and geographic distribution of the study; most influential writers; the most influential sources of journals, books, and conferences; and recent topics. The results showed that India and Indonesia were the most productive countries, followed by the US, Mexico, and Spain. The leading writer is Kharub, M. (India), and the most influential writer is Singh, M.P. (India), which contributes to MSME Research. The largest source is the Journal of Physics Conference Series (Conference and Proceeding), and the most influential sources are Resources, Conservation, and Recycling (journal). The topics that emerged the most were MSMEs, Small and Medium Enterprises, Micro, and India. Meanwhile, trending topics related to MSMEs are COVID-19, MSME performance, fintech, and technology adoption. This paper is expected to contribute to research related to MSMEs and can help researchers to develop further scientific research themes. This paper is also expected to be the basis of a country's government policy in developing MSMEs to strengthen the national economy. The researchers suggest a further review of MSMEs in the future more specifically in one continent, region, or country.

INTRODUCTION

It is widely accepted that empowering micro, small, and medium-sized enterprises (MSMEs) is critical and strategic in anticipating the future economy, particularly in terms of economic structure strengthening. A national financial crisis, for example, has a significant impact on national, economic, and political stability, affecting significant business activities that are deteriorating. Simultaneously, MSMEs continue to be relatively capable of maintaining their business activities (Azzahra & Wibawa, 2021; Syapsan, 2019). In other words, MSMEs still dominate economic activities (Samantha, 2018). In the future, it is estimated that development will be determined by the ability of micro, small, and medium-sized businesses to grow independently (Mohsin Shafi, Junrong Liu, & Wenju Ren, 2020). As known in the literature, micro businesses refer to profitable individuals or business entities (Djatmiko & Pudyastiwi, 2020; Prasetyo, 2018), and small businesses can be defined as economically productive enterprises that operate independently and are owned and operated by individuals or business entities that are not subsidiaries of or integrated into a medium or large enterprise (Azhar Affandi et al., 2020).

The current state of the literature, however, does not adequately explain how MSMEs expand to encompass a variety of research topics and trends. Therefore, to learn more about this area, a bibliometric study is necessary to ascertain the geographical distribution of this topic, the most influential authors, the most influential articles, and the most critical MSMEs research areas.

Bibliometric analysis is a technique for objectively evaluating scientific activity using the structure and content of the scientific literature (Pritchard, 1969). Basic bibliometric analysis makes use of descriptive statistics to characterize "topographic" trends within a corpus of knowledge (Wu, Chen, Zhan, & Hong, 2015) and explains how the knowledge base has evolved (Jeong, Park, & Yoon, 2019). Additionally, this strategy can be used to identify long-term trends within a research topic (de Vasconcelos Gomes, Facin, Salerno, & Ikenami, 2018).

For centuries, bibliographic analysis has been used to track scientific progress in a variety of fields, including economics (Kraus, Li, Kang, Westhead, & Tiberius, 2020) and business (Secinaro, Brescia, Calandra, & Biancone, 2020). However, this bibliometric technique is rarely used in MSME research (Saniuk & Grabowska, 2021). Furthermore, MSMEs have been omitted from numerous economic bibliometric studies, and there have been no studies that quantitatively assessed MSMEs in order to determine the growth of research trends in the MSME sector. Therefore, the purpose of this study is to fill gaps in the existing body of knowledge by documenting and synthesizing historical research patterns in MSMEs over the last decade in the following four research questions (RQs).

RQ1. How large is the volume and how geographically dispersed is it globally?
RQ2: Which researchers have had the greatest impact on the MSME literature?
RQ3: Which sources had the greatest influence on MSME literature?
RQ4: Which MSME research areas are the most critical?

METHODS

Pritchard (1969) was the first to introduce bibliometrics as a novel approach to review work. It has been used in a wide variety of research fields to date (Van Doorslaer, 2015), including those pertaining to micro, small, and medium-sized enterprises. These studies employ additional bibliometric techniques (e.g., statistical description, author analysis, and science mapping) to ascertain the subject's knowledge base. Between 2011 and 2021, 471 Scopus-indexed documents were analyzed to address four research questions.

This investigation made use of the Scopus database as a source document. The data for this study were collected using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) document search criteria (Moher et al., 2015). Two keywords were used in the search step of the Scopus database queries: 'micro, small, and medium enterprises,' and 'MSMEs.' We filtered out all documents that contained these terms in their title, abstract, or keyword. This was to ensure that the most critical documentation for micro, small, and medium-sized businesses was easily accessible. The following was the precise search phrase: TITLE-ABS-KEY ("micro, small and medium enterprises" AND "MSMEs").

The aforementioned search yielded 518 documents, which were then filtered further in the following step. Several parameters were used in the identification processes, most notably to refine the appropriate: (I) publication year: 2011 - 2021; (ii) language: English; and (iii) subject area: not specified. 24 documents were omitted from this phase due to the absence of an abstract. then the authors identified the existing documents and found 23 unsuitable documents so they were excluded. As a result, 471 papers advanced to the third stage of review (feasibility). In the third phase, we read each document's title and abstract. The final collection contained 471 publications, all of which were saved as CSV and RIS files for bibliometric analysis.

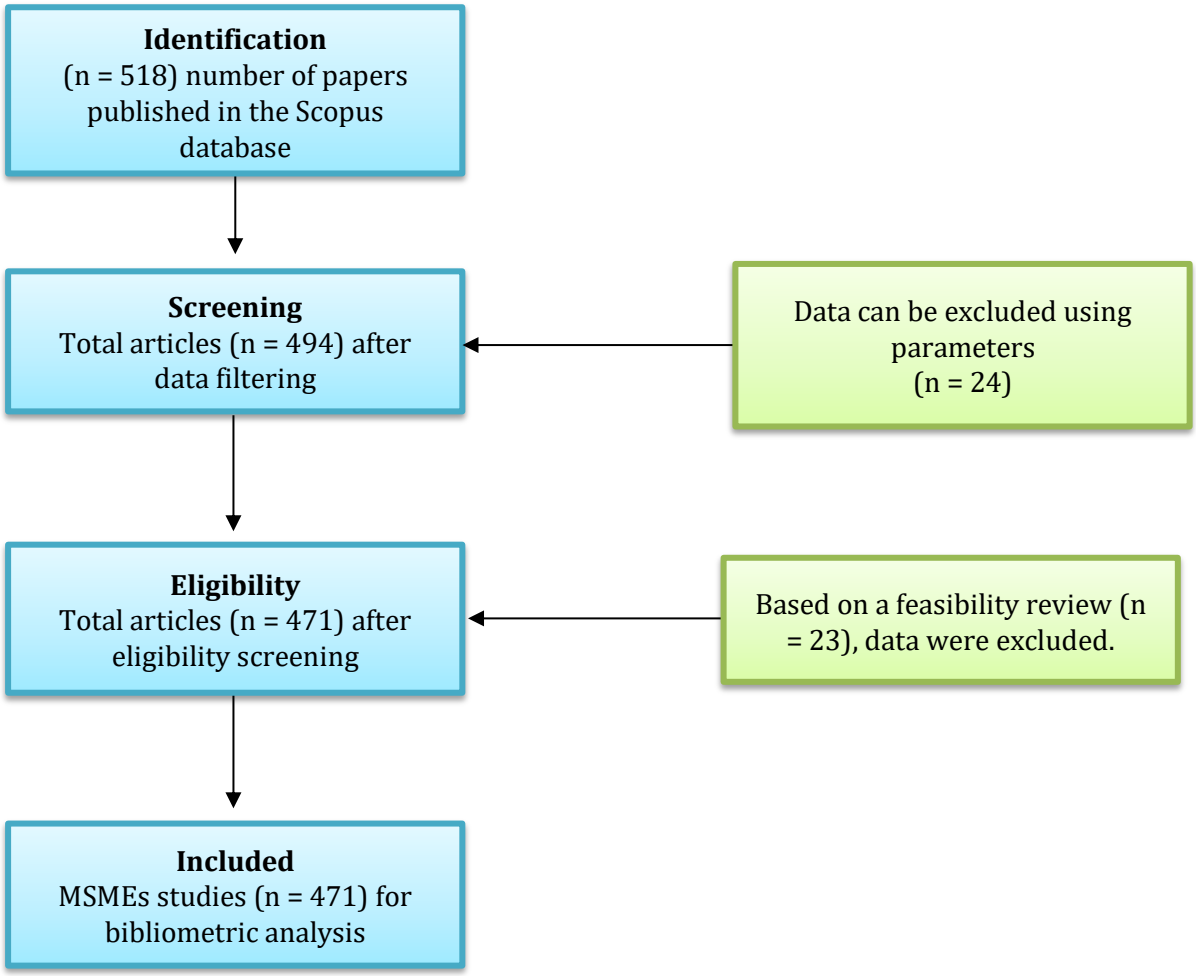

Figure 1. Systematic Review and Meta-Analysis Optional Reporting Items (PRISMA)

RESULTS AND DISCUSSION

RQ1. How large is the volume and how geographically dispersed is it globally?

This section presents findings from the first research question. Our PRISMA-based four-step search and discovery process uncovered 471 linked documents, including 308 journal articles (65.39 percent), 23 books or book chapters (4.88 percent), and 131 conference papers (27.81 percent). Figure 2 illustrates the number of MSME-related documents issued between 2011 and 2021. In 2011, only five MSME articles were published and indexed in the Scopus database. However, in 2021, the number of MSME documents published and indexed in the Scopus database increased dramatically, reaching 171, the same as the previous year. MSME documents increased in number from 2014 to 2017, reaching a total of 98 papers. Meanwhile, the last four years (2018-2021) have seen a significant increase in the number of documents pertaining to MSMEs. Specifically, 353 MSME-related documents were published during this time period, accounting for 74.95 percent of the 471 total papers.

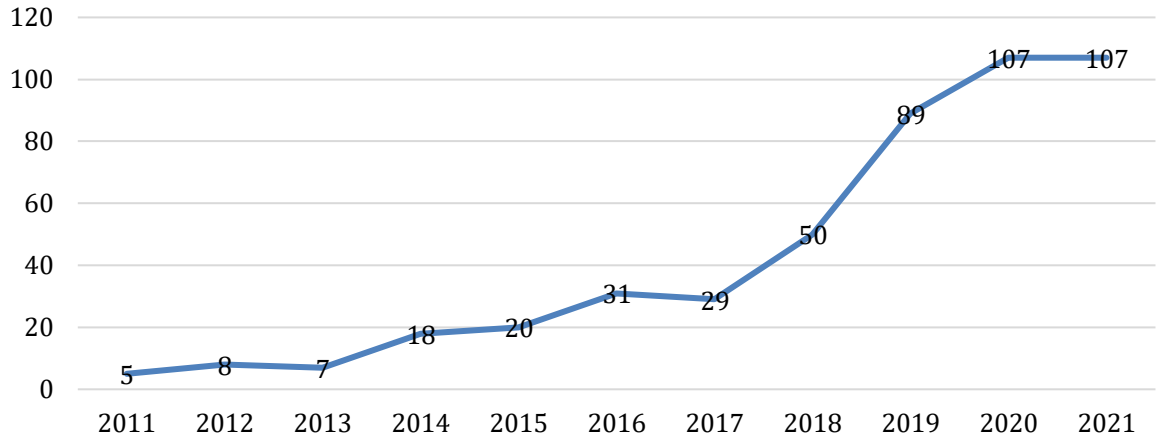

Figure 2. Between 2011 and 2021, the number of SMSE-related publications (N = 471)

In terms of the geographical distribution of documents pertaining to MSMEs, India and Indonesia are the two most prominent countries in the MSME research (out of 70 countries). India published 189 documents pertaining to MSMEs, accounting for 40.13 percent of the total 471 publications, while Indonesia published 142 documents, accounting for 30.15 percent. Meanwhile, the four countries with double-digit documents are the United States, Colombia, Mexico, and Spain. For the United States, Colombia, Mexico, and Spain, the figures are 19 documents (4.03 percent), 17 (3.61 percent), 13 (2.76 percent), and 13 (2.76 percent), respectively. All other countries, as illustrated in Figure 3, have one-digit MSME-related document. India is clearly the leader and a dominant force in the field. However, it is worth noting that the top six countries represent three continents (Asia, Europe, and America). Academic research in the field demonstrates that researchers from the three continents are paying increased attention to MSMEs, elevating them to a topic of academic discussion.

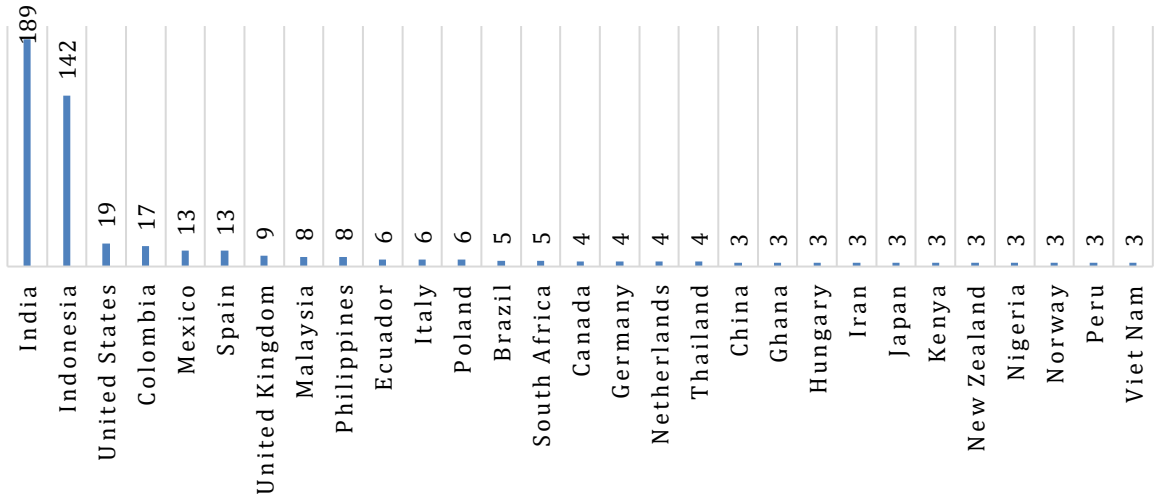

Figure 3. The number of publications on micro, small, and medium-sized enterprises by country between 2011 and 2021 (N = 471)

As illustrated in Figure 4, we have global distribution of journals and articles covering approximately 70 countries/regions. As can be seen, the most productive countries and regions in Asia are India, Indonesia, Malaysia, the Philippines, and Thailand. European regions such as Spain, England, Italy, Poland, and Germany. America such as the United States, Colombia, Mexico, Ecuador, and Brazil. Then on the African continent such as South Africa, Ghana, Kenya, Nigeria, and Ethiopia. Figure 4 shows a map of the world, it can be seen that the redder the color of the country, the more documents the author has.

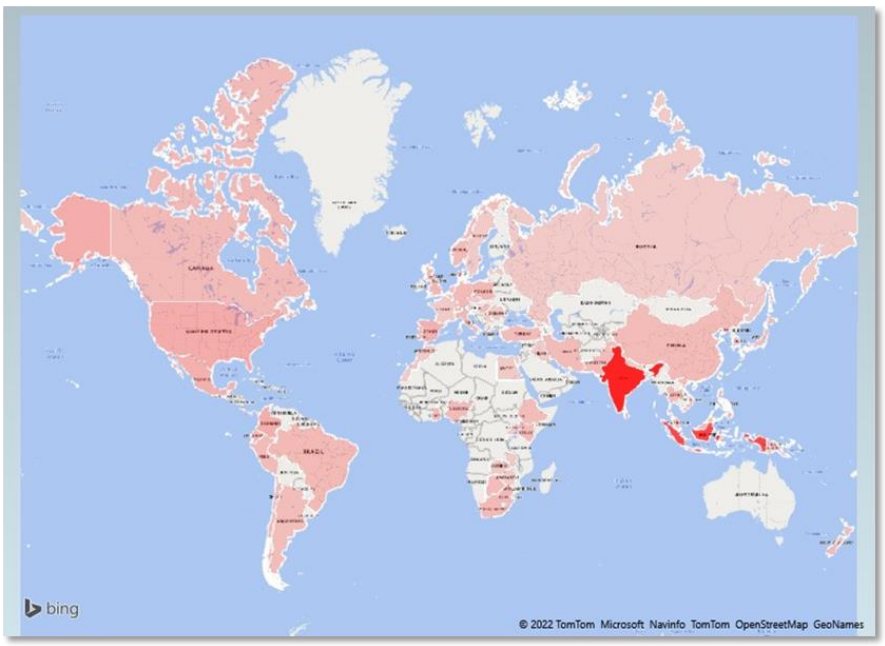

Figure 4. Geographic distribution of publications worldwide

To gain a more detailed understanding of the authors of MSMEs from different countries, we used VOSViewer to map the authors' countries of origin. In Figure 5, each node represents a single state. The size of each node indicates the number of MSME-related documents issued by authors from their respective countries. The line connecting the two vertices represents the co-authoring activity of authors from both countries. The wider the line, the more documents were contributed by each country. As illustrated in Figure 5, there is almost no cross-border writing collaboration because authors collaborate within their own countries.

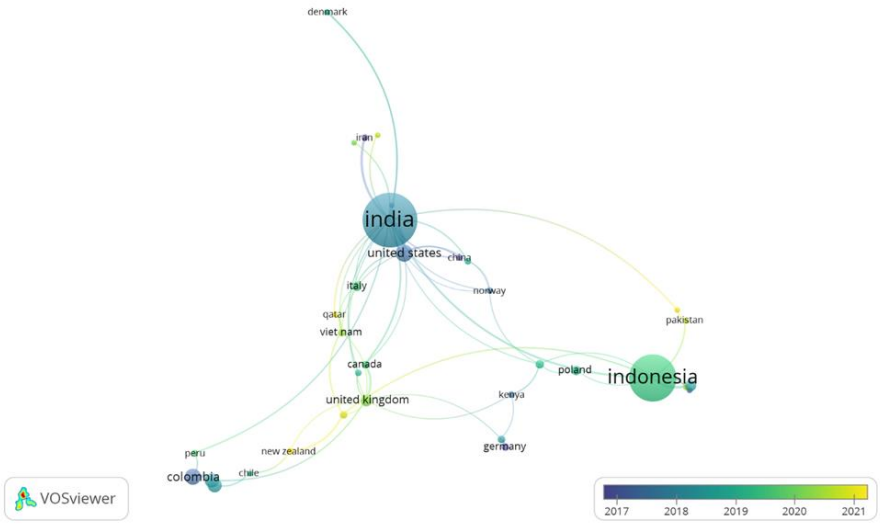

Figure 5. A country-by-country analysis of MSME research between 2011 and 2021

Figure 5 illustrates a pattern of co-authorship as well as recent MSME research in various countries. If the node was dark in color (purple or navy), it indicated that the authors from that country had been involved in MSME research for an extended period of time (before 2017). United States and Colombia are the two most well-known purple nodes.

Between 2017 and 2018, the blue nodes represent countries that paid attention to MSME research for the first time. India is by far the most prominent blue node. In 2019, the most productive countries involved in MSME research are Indonesia, Poland, Italy, and Peru that use

green. The United Kingdom and Vietnam are indicated by light green dots in 2020. In 2021, New Zealand, Qatar and Pakistan are represented in yellow. A closer examination of the detailed data set reveals that 2016 is not as significant as India's MSME study. India had only 16 documents pertaining to MSMEs in 2016, Indonesia had three, Mexico had three, and the United States had three.

Nonetheless, between 2017 and 2020, Indian academics published an unprecedented number of MSMEs, with 136 new documents published in India and 145 new publications published in Indonesia. We must examine previous rules governing MSME education in these countries in order to clarify documents pertaining to MSMEs from India and Indonesia, which have never occurred. More precisely, the policies of these two countries are comparable in terms of developing MSMEs, as MSMEs are a type of business that contributes to India's (Gade, 2018; Katyal & Xaviour, 2015; Singh, 2019) and Indonesia's (Nursini, 2020; Surya et al., 2021) economic growth.

RQ2: Which researchers have had the greatest impact on the MSME literature?

Table 1 lists the top MSME authors in terms of number of documents. Kharub, M., of CVR College of Engineering in Hyderabad, India, is the most prolific author with seven publications. Indian authors dominate the top ten MSME authors in terms of documents. Six Indonesian authors, two Mexican authors, and one American author are among the top ten MSME document authors (17 authors placed 10th).

Table 1. The top ten authors in MSME research between 2011 and 2021

Rank	Main Author	Affiliation	Document
1	Kharub, M.	CVR College of Engineering, Hyderabad, India	7
2	Haleem, A.	Jamia Millia Islamia, New Delhi, India	4
3	Khurana, S.	Maharaja Agrasen Institute of Technology, New Delhi, India	4
4	Mannan, B.	Sharda University, Greater Noida, India	4
5	Roy, M.	National Institute of Technology, Durgapur, India	4
6	Sharma, R.K.	National Institute of Technology Hamirpur, Hamirpur, India	4
7	Singh, M.P.	National Institute of Technology Rourkela, Rourkela, India	4
8	Ambily, A.S.	Amrita Vishwa Vidyapeetham University, Kochi, India	3
9	Bishu, R.	University of Nebraska–Lincoln, Lincoln, United States	3
10	Chakraborty, A.	National Institute of Technology, Durgapur, India	3
	Hendiarto, R.S.	Universitas Widyatama, Bandung, Indonesia	3
	Hermawati, A.	Universitas Widyagama Malang, Malang, Indonesia	3
	Jyotishi, A.	Azim Premji University, Bengaluru, India	3
	Kosasi, S.	STMIK Pontianak, Indonesia	3
	Nanda, T.	Thapar Institute of Engineering & Technology, Patiala, India	3
	Núñez-Ríos, J.E.	Universidad Panamericana, Ciudad de Mexico, Mexico	3
	Pramila Devi, M.	Andhra University, Visakhapatnam, India	3
	Ramachandran, S.	MM Deemed University, India	3
	Sharma, R.	National Institute of Technology Hamirpur, Department of Mechanical Engineering, Hamirpur, India	3
	Singh, D.	Punjabi University, Department of Mechanical Engineering, Patiala, India	3
	Singh, S.	Indian Institute of Technology (Indian School of Mines), Dhanbad, Dhanbad, India	3
	Siswanto, J.	Institut Teknologi Bandung, Bandung, Indonesia	3
	Suroso, A.	Universitas Mercu Buana, Jakarta, Indonesia	3
	Sánchez-García, J.Y.	Universidad Panamericana, Ciudad de Mexico, Mexico	3
	Upadhyay, P.	Indian Institute of Management Shillong, Shillong, India	3

The authors of MSMEs who have received the most citations are listed in Table 2. Singh, M.P. of Rourkela National Institute of Technology in Rourkela, India, has the most citations with 65. Indian authors have reclaimed the top ten MSME authors in terms of citations. A US author, an Australian author, a Spanish author, a Japanese author, and a Zimbabwean author are among the top ten MSME authors in terms of citations (there are six authors ranked 10th).

Surprisingly, no authors from Indonesia appeared in Table 2 of the top MSMEs authors by number of citations, despite the fact that Indonesia was the second largest provider of documents overall. This is because the Indonesian authors did not place a premium on conducting sustainable research on MSMEs. In comparison to authors from the United States, despite the small number of documents, the number of citations is the second highest. For instance, F.M. Edoho from Lincoln University of Missouri in Jefferson City, Missouri, has 62 citations.

Table 2. The top ten MSMEs authors in terms of citations received between 2011 and 2021

Rank	Author	Affiliation	Title	Citations
1	Singh, M.P.	National Institute of Technology Rourkela, Rourkela, India	Developing an extended theory of planned behavior model to explore circular economy readiness in manufacturing MSMEs, India	65
2	Edoho, F.M.	Lincoln University of Missouri, Jefferson City, United States	Entrepreneurship paradigm in the new millennium: A critique of public policy on entrepreneurship	62
3	Upadhyay, P.	Indian Institute of Management Shillong, Shillong, India	Factors influencing ERP implementation in Indian manufacturing organisations: A study of micro, small and medium-scale enterprises	53
4	Sahoo, P.	Institute of Economic Growth India, New Delhi, India	COVID-19 and Indian Economy: Impact on Growth, Manufacturing, Trade and MSME Sector	35
5	Kharub, M.	CVR College of Engineering, Hyderabad, India	Comparative analyses of competitive advantage using Porter diamond model (the case of MSMEs in Himachal Pradesh)	35
6	Amrita, K.	Indian Institute of Technology (Indian School of Mines), Dhanbad, India	Modelling the critical success factors of women entrepreneurship using fuzzy AHP framework	32
7	Kairiza, T.	Bindura University of Science Education, Bindura, Zimbabwe	Gender differences in financial inclusion amongst entrepreneurs in Zimbabwe	31
8	Nejati, M.	Edith Cowan University, Perth, Australia	Examining stakeholders' influence on environmental responsibility of micro, small and medium-sized enterprises and its outcomes	31
9	Sánchez-Infante Hernández, J.P.	Universidad de Castilla-La Mancha, Ciudad Real, Spain	Moderating effect of firm size on the influence of corporate social responsibility in the economic performance of micro-, small- and medium-sized enterprises	30
10	Meng, B.	Institute of Developing Economies, Chiba, Japan	More than half of China's CO2 emissions are from micro, small and medium-sized enterprises	28
	Deshpande, A.	Ashoka University, Sonipat, India	Entrepreneurship or survival? Caste and gender of small business in India	28

We performed a science mapping on behalf of the author using VOSViewer. The nodes in

Figure 6 are colored according to the most recent MSME study conducted by various authors. As illustrated in Figure 6, Indian authors such as Pramilia Devi, M. Kharub, M. Roy, A. Haleem, and S. Kumar conducted research from the beginning to the present by being exposed to purple, blue, green, and yellow colors. Meanwhile, all of the "recently formed" research groups, such as Surosa A and Soewarno, N, originated in Indonesia.

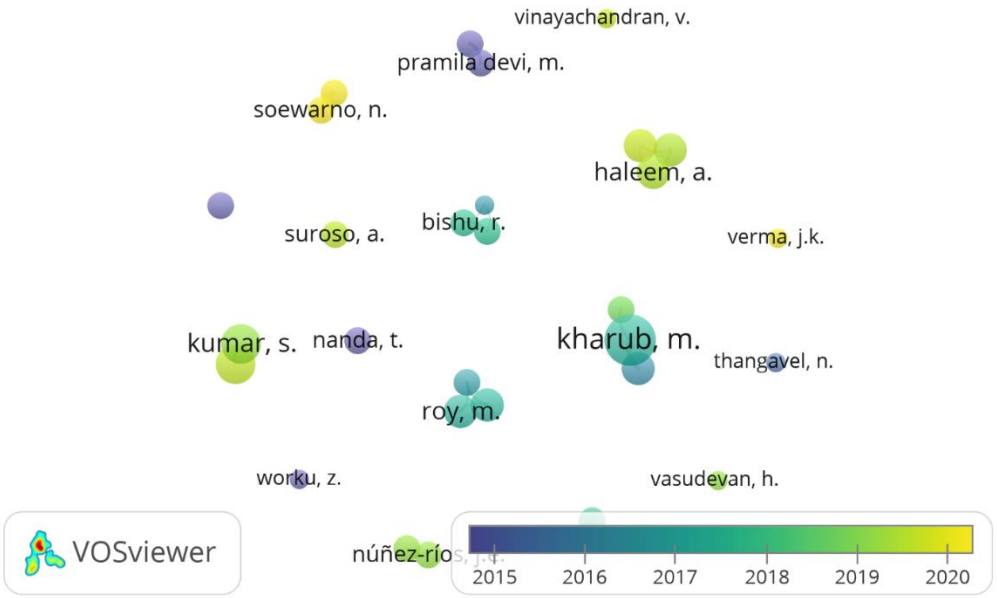

Figure 6. The map of authors in MSME research between 2011 and 2021

RQ3: Which sources had the greatest influence on MSME literature?

Table 3 lists the top MSME research sources based on the number of publications and citations related to MSMEs. The Journal of Physics Conference Series (SJR 2020 = 0.210), the IOP Conference Series Earth and Environmental Science (SJR 2020 = 0.179), the International Journal of Advanced Science and Technology (Discontinued at Scopus in 2020), the IOP Conference Series Materials Science and Engineering (Discontinued at Scopus in 2020), and the Review of International Geographical Education Online (SJR 2020 = 0.223) are the top five sources in terms of number of documents. Surprisingly, some authors prefer to present their work at conferences rather than in journals. Scopus then stopped accepting documents from the top sources with the most documents in 2020.

Table 3. The top 10 sources for MSMEs articles between 2011 and 2021 based on the number of publications

Rank	Source	Source type	Document
1	Journal Of Physics Conference Series	Conference and Proceeding	15
2	IOP Conference Series Earth And Environmental Science	Conference and Proceeding	11
3	International Journal Of Advanced Science And Technology	Journal	10
4	IOP Conference Series Materials Science And Engineering	Conference and Proceeding	9
5	Review Of International Geographical Education Online	Journal	9
6	International Journal Of Entrepreneurship And Small Business	Journal	8
7	International Journal Of Scientific And Technology Research	Journal	7

	Journal Of Asian Finance Economics And Business	Journal	7
	Procedia Computer Science	Conference and Proceeding	7
	Proceedings Of The International Conference On Industrial Engineering And Operations Management	Conference and Proceeding	7
	Sustainability Switzerland	Journal	7

There are five primary sources listed in Table 3 in terms of the number of citations: Educational Studies in Resources, Conservation, and Recycling (SJR 2020 = 2.468), Journal of Enterprise Information Management (SJR 2020 = 0.741), Global Business Review (SJR 2020 = 0.419), Competitiveness Review (SJR 2020 = 0.402), and Journal of Entrepreneurship in Developing Economies (SJR 2020 = 0.645), and Journal of Entrepreneurship in Developing Economies (SJR 2020 = 0.645).

Table 4. The top ten sources for MSMEs article citations between 2011 and 2021

Rank	Source	Source type	Citation
1	Resources, Conservation and Recycling	Journal	65
2	Journal of Entrepreneurship in Emerging Economies	Journal	62
3	Journal of Enterprise Information Management	Journal	53
4	Global Business Review	Journal	35
5	Competitiveness Review	Journal	35
6	African Journal of Economic and Management Studies	Journal	32
7	Small Business Economics	Journal	31
8	Management Decision	Journal	31
9	Technological Forecasting and Social Change	Journal	30
10	Applied Energy	Journal	28
	Economic and Political Weekly	Journal	28

RQ4: Which MSME research areas are the most critical?

To address this, we used VOSViewer to conduct a co-keyword analysis. Keywords are linked to the documents to which they refer. Each paper contains 3-6 keywords. Figure 7 depicts the co-keyword network generated from our database. Each node represents a keyword. The size of the node indicates how frequently the associated keywords appear in the MSME documents. Each keyword's color indicates how recently it is used. According to Figure 7, the most frequently used terms were "MSMEs" (91 times), MSME (81 times), small and medium-sized enterprises (64 times), micro (42 times), and India (31 times).

We recommend counting the pairs or three times the most frequently occurring keywords, as these terms frequently occur in conjunction. MSMEs, MSME (79 times), micro (42 times), and India (28 times) were the most frequently occurring keyword pairs alongside the most prominent terms; meanwhile, the most frequently occurring triple keywords were MSMEs, MSME, and India.

Additionally, we should consider the most significant terms that have surfaced recently. The yellow node in Figure 7 determines how to approach this issue. Recently, COVID-19, MSME performance, fintech, and technology adoption have been among the "hottest" MSMEs research topics.

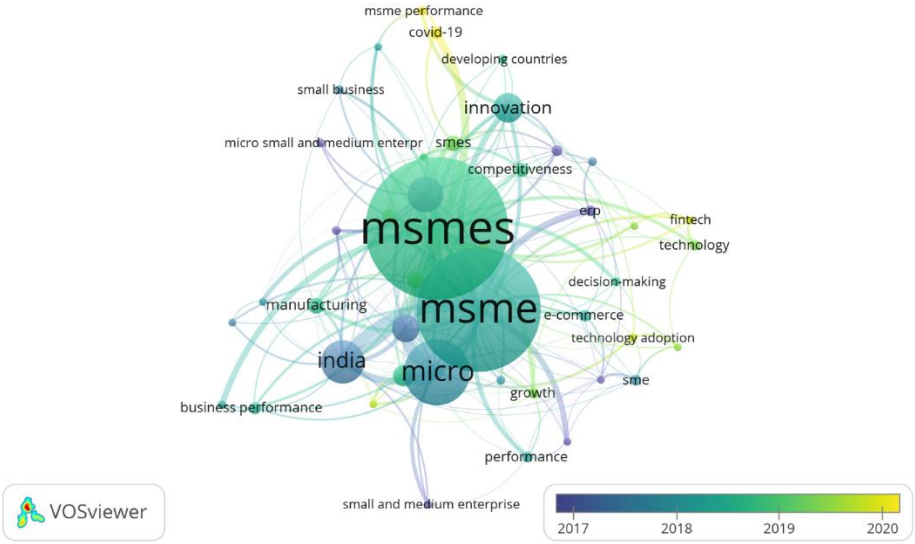

Figure 7. Author keyword mapping in MSMEs based on co-occurrence analysis

MSMEs have long been recognized in the country as a resilient economic source. This is the first study that we are aware of that evaluates MSMEs research using bibliometric analysis methods. Between 2011 and 2021, 471 documents relating to MSME were retrieved from the Scopus database and analyzed using Excel and VOSViewer. Four characteristics have been established, each associated with a distinct research topic: (i) total volume; (ii) authors; (iii) the sources (journals, books, and conferences); and (iv) the most significant issues.

The study of MSMEs has gained numerical and geographical traction in a number of countries, with publications from India and Indonesia playing a significant role, particularly following 2016. This accomplishment can be attributed to India's and Indonesia's economic policies, which place a premium on the development of micro, small, and medium-sized enterprises in their respective countries. In India, to bolster the national economy, the government guides and develops MSMEs (Das, 2007; Pachouri & Sharma, 2016). In Indonesia, the government assists MSMEs in continuing to grow through capital assistance (Kusumawardhani, Rahayu, & Maksum, 2015; Surya et al., 2021).

Indian authors dominate the list of authors with the most documents, indicating that the country has conducted a significant amount of research on MSMEs (Biswas, 2015; Katyal & Xaviour, 2015). Indian authors top the list of most-cited authors, indicating that their fundamental ideas are pertinent to the issue that will be discovered, cited, evaluated, and applied by scholars and researchers worldwide. Despite the author's origins in the United States and his limited document collection, he has been cited by a number of academics, including authors from India and Indonesia.

Additionally, the data indicate that all of the MSMEs papers chosen were published in prestigious economic publication outlets. The Journal of Physics Conference Series, in particular, has the highest number of MSMEs study publications, with 15 articles in related papers, indicating a strong interest among MSMEs researchers in presenting and spreading MSMEs to the global population via international conferences. The IOP Conference Series Earth and Environmental Science is the second most productive MSME journal, with 11 papers. As a result, Indian MSMEs scholars have developed a reputation and a track record of accomplishments within both the domestic and international scientific communities.

Finally, the following keywords appeared frequently in selected articles that were associated with MSMEs: "MSMS," "micro," and "India." This demonstrates that MSMEs focusing on micro-enterprises and based in India are receiving increased attention. In addition, it is worth noting that the research topics covered by these MSME studies are quite diverse, ranging from COVID-

19 (A. Affandi et al., 2020; Chaudhary, Sodani, & Das, 2020; Duarte Alonso et al., 2021; M. Shafi, J. Liu, & W. Ren, 2020; Syaifullah, Syaifudin, Sukendar, & Junaedi, 2021), MSMEs performance (Hanggraeni, Šlusarczyk, Sulung, & Subroto, 2019; Muafi, 2020; Sánchez-Infante Hernández, Yañez-Araque, & Moreno-García, 2020), fintech (Kohardinata, Soewarno, & Tjahjadi, 2020; Purnamasari, Pramono, Haryatiningsih, Ismail, & Shafie, 2020; Suryanto, Rusdin, & Dai, 2020), and technology adoption (Fyke, 2019; Jamwal, Agrawal, Sharma, Kumar, & Kumar, 2021).

Conclusion

This paper presents a bibliometric analysis of MSME Research from 20011 to 2021 based on Scopus data. This paper analyzes primarily from four perspectives: the volume and distribution of publications globally, which researchers have the most documents, which sources have the most influence, and which researchers have the most influence. The number of publications has almost steadily increased since 2016. India and Indonesia are the most productive countries, followed by the US, Mexico, and Spain. The leading writer is Kharub, M. (India), and the most influential writer is Singh, M.P. (India), who contributes to MSME Research. The biggest source is the Journal of Physics Conference Series (Conference and Proceeding), and the most influential source is Resources, Conservation, and Recycling (journal). The topics that emerged the most were MSMEs, MSME, small and medium-sized enterprises, micro, and India. while the trending topics related to MSMEs are COVID-19, MSME performance, fintech, and technology adoption.

Overall, this paper provides an overview of the MSME Research objectives with bibliometric analysis, which is an important and valuable tool for researchers to understand trends and understand some of the journal's hot topics or future research directions. This paper is expected to contribute to research related to MSMEs and can help researchers to develop further scientific research themes. This paper is also expected to form the basis of a country's government policy in developing MSMEs to strengthen the national economy. The limitation of this research is that it still uses global data in the world, then more specific research can be carried out on continents, regional areas, or countries.

References

Affandi, A., Sarwani, Sobarna, A., Erlangga, H., Siagian, A. O., Purwanto, A., & Gunartin. (2020). Optimization of MSMEs empowerment in facing competition in the global market during the COVID-19 pandemic time. *Systematic Reviews in Pharmacy, 11*(11), 1506-1515. doi:10.31838/srp.2020.11.213

Affandi, A., Sarwani, A. S., Erlangga, H., Siagian, A. O., Purwanto, A., Effendy, A., & Juhaeri, G. (2020). Optimization of MSMEs empowerment in facing competition in the global market during the COVID-19 pandemic time. *Systematic Reviews in Pharmacy, 11*(11), 1506-1515.

Azzahra, B., & Wibawa, I. G. A. R. P. (2021). Strategi Optimalisasi Standar Kinerja UMKM Sebagai Katalis Perekonomian Indonesia Dalam Menghadapi Middle Income Trap 2045. *Inspire Journal: Economics Development Analysis, 1*(1), 75-86.

Biswas, A. (2015). Opportunities and constraints for Indian MSMEs. *International Journal of Research, 2*(1), 273-282.

Chaudhary, M., Sodani, P. R., & Das, S. (2020). Effect of COVID-19 on Economy in India: Some Reflections for Policy and Programme. *Journal of Health Management, 22*(2), 169-180. doi:10.1177/0972063420935541

Das, K. (2007). SMEs in India: issues and possibilities in times of globalisation. *Asian SMEs Globalization, ERIA Research Project Report, 5*, 69-97.

de Vasconcelos Gomes, L. A., Facin, A. L. F., Salerno, M. S., & Ikenami, R. K. (2018). Unpacking the innovation ecosystem construct: Evolution, gaps and trends. *Technological Forecasting Social Change, 136*, 30-48.

Djatmiko, A., & Pudyastiwi, E. (2020). Obstacles and Challenges of Indonesia's Micro, Small and Medium Enterprises (UMKM) in Facing the Covid-19 Pandemic. *Jurnal Pendidikan Kewarganegaraan Undiksha, 8*(3), 117-123.

Duarte Alonso, A., Bressan, A., Kok, S. K., Sakellarios, N., Koresis, A., O'Shea, M., & Santoni, L. J. (2021). Facing and responding to the COVID-19 threat – an empirical examination of MSMEs. *European Business Review, 33*(5), 775-796. doi:10.1108/EBR-09-2020-0231

Fyke, A. (2019). The Fall and Rise of Gravity Storage Technologies. *Joule, 3*(3), 625-630. doi:10.1016/j.joule.2019.01.012

Gade, S. (2018). MSMEs' role in economic growth–a study on India's perspective. *International Journal of Pure Applied Mathematics, 118*(18), 1727-1741.

Hanggraeni, D., Šlusarczyk, B., Sulung, L. A. K., & Subroto, A. (2019). The impact of internal, external and enterprise risk management on the performance of micro, small and medium enterprises. *Sustainability (Switzerland), 11*(7). doi:10.3390/su10022172

Jamwal, A., Agrawal, R., Sharma, M., Kumar, V., & Kumar, S. (2021). *Developing A sustainability framework for Industry 4.0.* Paper presented at the 28th CIRP Conference on Life Cycle Engineering, LCE 2021.

Jeong, Y., Park, I., & Yoon, B. (2019). Identifying emerging Research and Business Development (R&BD) areas based on topic modeling and visualization with intellectual property right data. *Technological Forecasting Social Change, 146*, 655-672.

Katyal, A., & Xaviour, B. (2015). A study on MSMEs'-role in propelling economic development of India & a discussion on current HR issues in MSMEs' in India. *International Journal of Scientific Research Publications, 5*(2), 1-11.

Kohardinata, C., Soewarno, N., & Tjahjadi, B. (2020). Indonesian peer to peer lending (P2P) at entrant's disruptive trajectory. *Business: Theory and Practice, 21*(1), 104-114. doi:10.3846/btp.2020.11171

Kraus, S., Li, H., Kang, Q., Westhead, P., & Tiberius, V. (2020). The sharing economy: A bibliometric analysis of the state-of-the-art. *International Journal of Entrepreneurial Behavior Research in Globalization*.

Kusumawardhani, D., Rahayu, A. Y., & Maksum, I. R. (2015). The role of government in MSMEs: The empowerment of MSMEs during the free trade era in Indonesia. *Australasian Accounting, Business Finance Journal, 9*(2), 23-42.

Moher, D., Shamseer, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., & Stewart, L. A. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Systematic reviews, 4*(1), 1-9.

Muafi, M. (2020). A nexus among strategic orientation, social network, knowledge sharing, organizational innovation, and MSMEs performance. *Journal of Asian Finance, Economics and Business, 17*(6), 327-338. doi:10.13106/jafeb.2020.vol7.no6.327

Nursini, N. (2020). Micro, small, and medium enterprises (MSMEs) and poverty reduction: empirical evidence from Indonesia. *Development Studies Research, 7*(1), 153-166.

Pachouri, A., & Sharma, S. (2016). Barriers to innovation in Indian small and medium-sized enterprises.

Prasetyo, D. W. (2018). Pembinaan Usaha Kecil Mikro dan Menengah (UMKM) Konveksi Desa Karobelah Kecamatan Mojoagung-Jombang. *Comvice: Journal of community service, 2*(1), 9-14.

Pritchard, A. (1969). Statistical bibliography or bibliometrics? . *Journal of Documentation, 25*(4), 348–349.

Purnamasari, P., Pramono, I. P., Haryatiningsih, R., Ismail, S. A., & Shafie, R. (2020). Technology Acceptance Model of Financial Technology in Micro, Small, and Medium Enterprises (MSME) in Indonesia. *Journal of Asian Finance, Economics and Business, 7*(10), 981-988. doi:10.13106/jafeb.2020.vol7.no10.981

Samantha, G. (2018). The impact of natural disasters on micro, small and medium enterprises (MSMEs): A case study on 2016 flood event in western Sri Lanka. *Procedia engineering, 212*, 744-751.

Sánchez-Infante Hernández, J. P., Yañez-Araque, B., & Moreno-García, J. (2020). Moderating effect of firm size on the influence of corporate social responsibility in the economic performance

of micro-, small- and medium-sized enterprises. *Technological Forecasting and Social Change, 151*. doi:10.1016/j.techfore.2019.119774

Saniuk, S., & Grabowska, S. (2021). The concept of cyber-physical networks of small and medium enterprises under personalized manufacturing. *Energies, 14*(17), 5273.

Secinaro, S., Brescia, V., Calandra, D., & Biancone, P. (2020). Employing bibliometric analysis to identify suitable business models for electric cars. *Journal of Cleaner Production, 264*, 121503.

Shafi, M., Liu, J., & Ren, W. (2020). Impact of COVID-19 pandemic on micro, small, and medium-sized Enterprises operating in Pakistan. *Research in Globalization, 2*, 100018.

Shafi, M., Liu, J., & Ren, W. (2020). Impact of COVID-19 pandemic on micro, small, and medium-sized Enterprises operating in Pakistan. *Research in Globalization, 2*. doi:10.1016/j.resglo.2020.100018

Singh, D. (2019). Implementation of technology innovation in MSMEs in India: Case study in select firms from Northern Region. *Journal of Science Technology Policy Management*.

Surya, B., Menne, F., Sabhan, H., Suriani, S., Abubakar, H., & Idris, M. (2021). Economic growth, increasing productivity of SMEs, and open innovation. *Journal of Open Innovation: Technology, Market, Complexity, 7*(1), 20.

Suryanto, S., Rusdin, R., & Dai, R. M. (2020). Fintech as a Catalyst for Growth of Micro, Small and Medium Enterprises in Indonesia. *Academy of Strategic Management Journal, 19*(5), 1-12.

Syaifullah, J., Syaifudin, M., Sukendar, M. U., & Junaedi, J. (2021). Social Media Marketing and Business Performance of MSMEs During the COVID-19 Pandemic. *Journal of Asian Finance, Economics and Business, 8*(2), 523-531. doi:10.13106/jafeb.2021.vol8.no2.0523

Syapsan, S. (2019). The effect of service quality, innovation towards competitive advantages and sustainable economic growth: Marketing mix strategy as mediating variable. *Benchmarking: An International Journal, 26*(4), 1336-1356.

Van Doorslaer, L. (2015). 13 Bibliometric studies. *Researching translation interpreting*, 168.

Wu, X., Chen, X., Zhan, F. B., & Hong, S. (2015). Global research trends in landslides during 1991–2014: a bibliometric analysis. *Landslides, 12*(6), 1215-1226.