CU Global Management Review
Vol. 11,Issue 2, July-December 2022, pp. 32-42

Effect of COVID-19 on Small Business Management: Bibliometric Analysis

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Abstract

Micro, Small and Medium Enterprise (MSME) sector is currently known as the engine of growth and development for any economy. Now-a-days MSMEs are contributing in terms of GDP, Employment Generation and Export contribution to attain the sustainable development goals of almost every economy in the world. The study aimed to examine the research trends of COVID-19 impact on MSME sector from 2019 to June 30, 2022. A bibliometric analysis has been done by using VOSviewer Software to analyze the data extracted from SCOPUS database. Additionally, the study investigates the information based on annual research output, regional research output, author's contribution, keywords frequency, subject area, research output by document titles, and funding sponsors. The research result reveals that the most productive year is 2021 considering research output. A total of 739 documents were found during 2019 to 2022 in the SCOPUS database. Out of which 409 documents were published in 2021 and major quantity of the documents were published in the journal entitled "Sustainability Switzerland". The research further reveals that Indonesia, United Kingdom, China, India, and Malaysia are the most productive countries in this research area.

Key Words: MSMEs, Sustainable Development, Covid-19, VOSviewer, Bibliometric, Gross Domestic Product.

1.0 Introduction:

The corona virus pandemic is not just a body blow to humans but also the economies of the world. India is no different. The Indian government announced a national lockout to control the spread of the virus. As a result industrial productivity has reduced and the economy has almost stopped. MSMEs enterprises were hit the hardest (Shaikh, 2021). Mainly the service providers are facing severe problems in conduction their business as they are labor intensive organization. Besides, manufacturing sector is also facing difficulties like unavailability of raw materials, restricted movements of goods, inadequate marketing facilities etc.

MSMEs are playing a significant role in employment generation, GDP contribution, and contribution in exports in the economy of any country in the world. This sector is currently treated as a vibrant sector for sustainable economic development and poverty alleviation. Unemployment is increasing due to Covid effect worldwide. This unemployment can be reduced through establishment of MSME units because small businesses can run with relatively lower capital and technological integration (Rai, R., K., L. 2022). Earnings of MSME sector have been decreased by 20-50 percent and the Covid situation has been slowing down the trends of MSMEs growth and development (Tripathi A., 2020). The contribution of MSMEs on economy of any country is running low day by day. At present, Covid -19 is creating undue pressure on every sphere of business sector and MSME is one the sector that has a great potentiality in the world. Additionally, the sector is confronted by the unforeseen effects of the pandemic, slow demand and growing unemployment. So, the government and private companies must therefore take initiative to rescue and support the MSME sector to maintain sustainable economic growth of the economy.

2.0 Literature Reviews:

A number of authors dealt with the topic regarding impact of covid-19 on Indian MSME sector. Some of the literatures are reviewed in the following:

(Mahajan Y. D., 2020) authored an article entitled "Study of impact of corona virus pandemic on small and medium enterprises (SME's) in India". The author opined that declining demand and broken supply chain is the biggest problems encountered by SMEs in India. Besides, the researcher identified some other problems like export declines, instability in demand, liquidity constraints, unemployment creation, lack of support and so on. (Sahoo P. and Ashwani, 2020) had a research paper on "COVID-19 and Indian Economy: Impact on Growth, Manufacturing, Trade and MSME sector". The study shows that the pandemic has a major impact on the Indian economy at different levels in small and medium-sized enterprises and various scenarios due to its full, comprehensive, and partial lockouts. Researchers found that mining; building, trade, hotels, transport, and financial services are the most affected industries. The production sector can be cut by 5.5 to 20%.

(Bhat S.A. and Meher S., 2020) wrote an article entitled "Impact of Covid-19 Crisis on MSME Sector in India". The researcher investigated the COVID-19 interruption of supply chain production, leading to severe crises in the service and production industries. This continuous lock-down has been shown to affect micro-enterprises, in particular in the service sector. In addition, a dramatic decline of MSMEs in the hotel, tourism, and logistics has occurred in the Covid-19 pandemic. MSMEs in key services are however still operational and are likely to not be isolated from the slowdown due to fluidity constraints or purchasing capacity. This Covid-19 has dramatically

impacted the MSMEs involved in consumer goods, footwear, utensils, clothing, and vehicles. In addition, MSMEs, which rely on direct imports of raw materials such as electronics, pharmacies, etc., face major bottlenecks and have already shut down their operations. COVID-19 has reduced the contribution of MSMEs to India's economy on GDP, exports, and trade. (Chetia M., 2020) researched on "The Impact of Covid- 19 Pandemic on MSME Sector of India-Challenges and Prospects". The research paper aims to detect the full impact on MSMEs, the lifeline to the rural and semi-urban economies of India, of the Covid 19 pandemic. The main characteristics of a Covid 19 pandemic are its duration, invention of medicine and therapy, and its capacity to adapt to minimize the risk of Covid 19. The pandemic is characterized by uncertainty. The supply chain is also uncertain for the prolonged lock-up that makes re-launching businesses difficult for companies. But these MSMEs are confronted by some bottlenecks such as unfair allocation of scarce materials and imported components, shortage of credit and funding, scarcity of working capital, poor technology and management capability and shortage of initiative to improve technology. Some efforts must therefore be given to improve technology, internal technological innovation, promote corporate connections, improve financial infrastructure, and provide support systems to overcome these problems.

(Roy A. et al., 2020) wrote an article on "Impact of Covid-19 crisis on Indian MSME sector: A study on remedial measures". The article means to recognize the consequences for the MSME area in India of the setback of help measures. It was found that key business exercises, for example, exchange and crude material obtainment have been hindered by the inability to deliver sufficient help measures. In the COVID-19 pandemic circumstance, almost 50% of the MSME specialty units in India were influenced by misfortune in the middle of 20-25 percent. Analysts have seen how the payment of advance ensures; the arrangement of sponsorships to the MSME area and the Arrangement of extensions for acquiring cash from different casual channels have hurt the MSME area in India. The creators reasoned that inability to dispense help estimates influenced both the creation of fundamental and insignificant wares. Also, the misfortunes brought about by SMEs because of the inaccessibility of help measures have been continuously expanding. (Ahmed A., 2019) researched on role of MSME sector in sustainable development of India. The researcher found that MSMEs are contributing significantly in the sustainable growth of India in terms of employment generation, industrial production, and export contribution. Besides, this sector is helping in poverty alleviation and reduction of inequality.

3.0 Objectives of the Study:

The study has been conducted:

1. To visualize the research trend of covid-19 impact on sustainable development of MSME sector during 2019 to 2022.

2. To find the research output based on year, regional productivity, authors' contribution, document-wise contribution, subject area, keywords and funding sponsor.

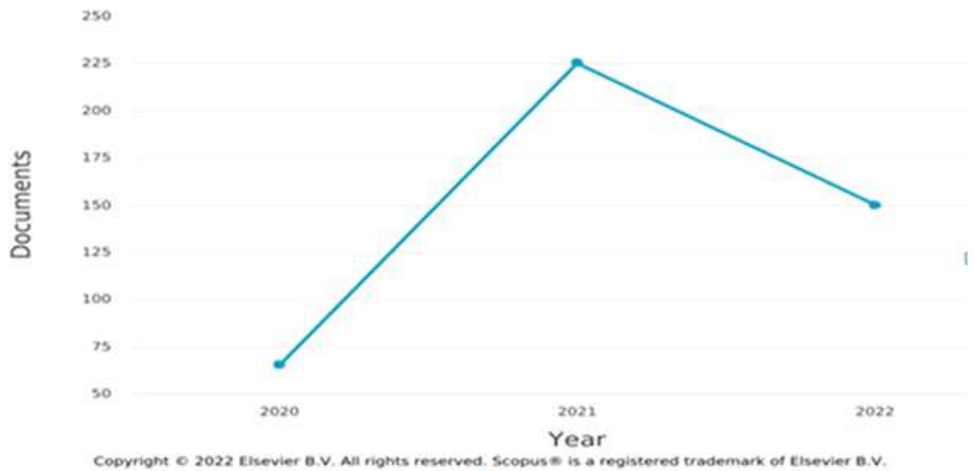
4.0 Methodology of the Study:

The study type was quantitative bibliometric analysis. A trend analysis has been conducted by using VOSviewer software. It uses only secondary data and the data sources were limited to SCOPUS database only. Besides, the data had been extracted from the database on June 30, 2022. The search sting "MSMEs" OR "SMEs" AND "Covid-19" used to extract data from the database. Moreover, filtering has been made by considering articles and conference proceedings concerning business, social science, and economics as subject area. Additionally, the study limited the documents by English language only.

5.0 Data analysis and interpretation:

5.1: Yearly research output on the field of study:

At first covid-19 was reported from Wuhan, China on 31st December, 2019 and gradually it affects our lives. From the year 2020, the pandemic was affecting severely to the society in most of the countries in the world. And the effect of covid pandemic still is causing death, illness, economic despair worldwide. That's why only three years data (2020 to 2022) were available in the scopus database related to the field of study. The highest number of documents were published in the year 2021 (409 documents) followed by 2022 (221 up to June 30, 2022) and 109 documents were published in the journals as well as conference proceedings. Worth mentioning, the search sting was limited to journal and conference proceedings of the study area. The following figure 1 clearly depicts that the most productive year is 2021 considering research output concentrating on the topic area.



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5.2: Regional productivity:

Country	Number of Document	Country	Citation
Indonesia	107	China	1630
United Kingdom	74	United Kingdom	941
China	60	United States	455
India	54	Indonesia	322
Malaysia	48	Australia	260
United States	47	Bangladesh	213
Italy	31	Saudi Arabia	187
Australia	21	India	177
Germany	20	Spain	156
Spain	20	Malaysia	137

Considering country or regional productivity of research output we notice from the table 1 that the highest number of documents was published by Indonesia (107 documents) followed by United Kingdom (74 documents), China (60 documents), India (54), and Malaysia (48). Rest of the countries published documents within the range of 47-20 accordingly. Besides, table 1 reveals that the most cited documents belongs to China (1360 citation) followed by United Kingdom (941 citation), United States (455 citation), Indonesia (322 citation), and Australia (260 citation). Moreover, rest of the country's document citation range from 213 to 137.

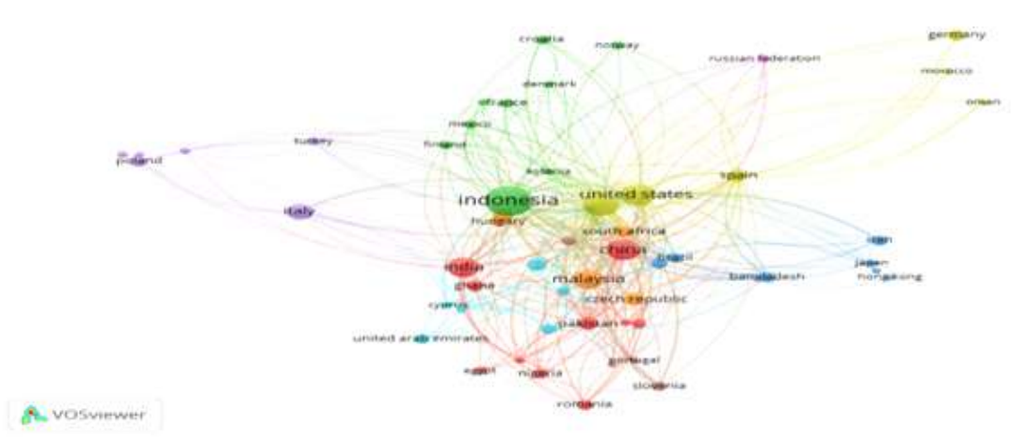


Figure-2: Visualization Network: Country-wise citation

5.3: Authors' contribution to the field of study:

Sl. Number	Name of the Author/Authors	Citation Number
1	Chowdhury p.	163
2	Paul s.k.	162
3	Brown r.	159
4	Rocha a.	159
5	Liu j.	144
6	Lu l.	105
7	Lu y.	105
8	Peng j.	105
9	Wu j.	105
10	Cowling m.	83

Citation is one of the most significant indicators of author's contribution in the field of research area. Table 2 displayed top-10 authors list who's research work in the field of study are cited by other researchers for the maximum times. Table 2 showed that choudhury p. has the highest citation (163) followed by paul s.k. (162), Brown r. (159), Rocha a. (159), and liu j. (144). Rest of the author's citation ranged from 105 to 83 in the field of research.

Co-authorship:

Collaborating activities among the researchers affect significantly on their performance. Research collaboration helps to conduct more effective and better quality research in any field of study. Figure 3 represents the network visualization of co-authorship among the researchers in the field of covid-19 impact on micro, small, and medium enterprises worldwide. Here the bright yellow color indicates more collaborating research work with other countries. It is clear from the figure 3 that Indonesia is holding the first position followed by United Kingdom, United States, China, India and Malaysia in this regard.

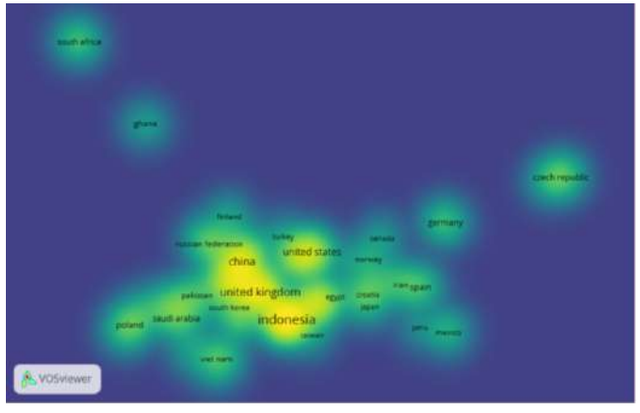


Figure 3: Visualization Network: Co-authorship

5.4: Research contribution from the Journal:

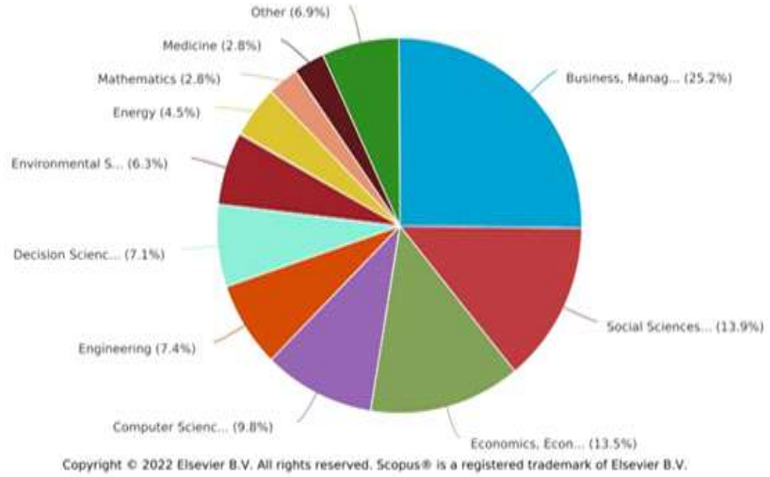
Journal title publishing the highest number of article on a specific study area is known as core journals. These core journals play a vital role in literature review for the specific domain of research. Table 3 demonstrates that the journal entitled "Sustainability (Switzerland)" published the highest number of documents (38) among the top-ten journals. Considering higher publication documents, "Handbook of research on strategies and interventions to mitigate covide-19 impact on smes" (17) has been occupied 2nd position followed by "Lecture notes in networks and systems" (12), "Proceedings of the international conference on industrial engineering and operations management" (11), and "Journal of entrepreneurship in emerging economies" (10). Rest of the five Journals published documents range from 10 to 7. Besides, citation of the research work denotes the recognition of other works in the research field as well as it increase credit of the authors. The document entitled "Plos one" is cited in the highest number in our research area. So, we can say that this journal has been published the most creditworthy documents (1114) on covid-19 impact on MSME sector during the study period. Rest of the journal citation ranged from 159 to 45.

Table 3: Source title-wise document and citation

Source Title	Documents	Source Title	Citation
Sustainability (switzerland)	38	Plos one	1114
Handbook of research on strategies and interventions to mitigate covid-19 impact on smes	17	Journal of business research	159
Lecture notes in networks and systems	12	International small business journal: researching entrepreneurship	156
Proceedings of the international conference on industrial engineering and operations management	11	Journal of business venturing insights	155
Journal of entrepreneurship in emerging economies	10	Sustainability (switzerland)	140
Review of international geographical education online	10	Journal of open innovation: technology, market, and complexity	135
Benchmarking	9	Frontiers of business research in china	67
Iop conference series: earth and environmental science	9	Journal of asian finance, economics and business	63
International small business journal: researching entrepreneurship	8	Journal of small business and entrepreneurship	58
Acm international conference proceeding series	7	Journal of entrepreneurship in emerging economies	45

5.5: Subject area:

The following figure represents the subject area which focused the study area during the period. It is very much clear from figure 4 that business management (25.2%) occupied the maximum share of research study on covid-19 impact on sme business followed by social sciences (13.9%), Economics (13.5%), Computer science (9.8%), Engineering (7.4%), and Decision Science (7.1%). Additionally, environmental science, mathematics, energy, medicine also have significant research contribution on this issue.



5.6: Keywords' Frequencies:

A large number of research works have been conducted by different authors from different countries on covid-19 impact on MSME sector. Table 4 showed that the keyword "covid-19" appeared the highest times (319) in the research work on the area of research during the period. The second highest position is occupied by the keyword "smes" (151 times) and rest of the keywords' frequency lies in the range between 74 to 32 times.

Table 4: Frequently appeared keywords

Sl. Number	Keywords	Frequencies
1	covid-19	319
2	Smes	151
3	small and medium-sized enterprise	74
4	Sme	50
5	Pandemic	48
6	covid-19 pandemic	43
7	Sustainability	41
8	Innovation	33
9	Msmes	33
10	Resilience	32

5.7: Funding sponsors contribution

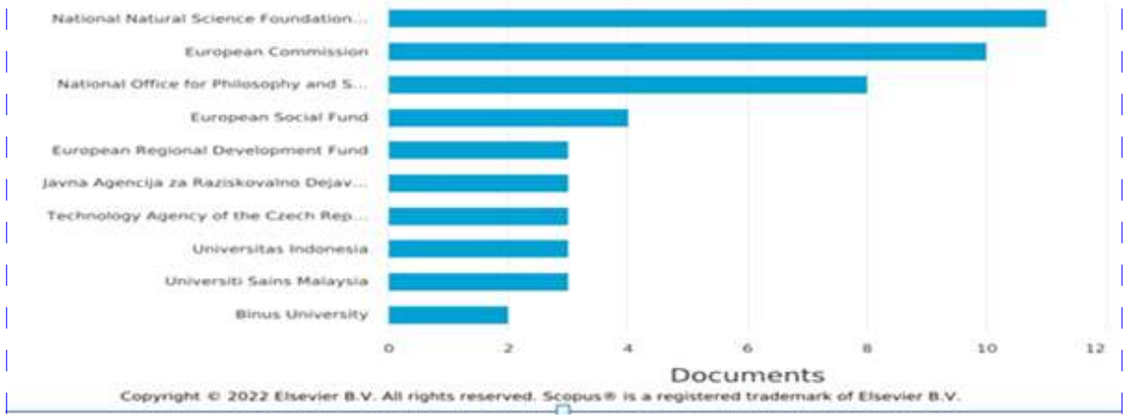


Figure 5: Contribution of funding sponsors

Research funding is a cruscial matter for smooth conduction of research work. It is finacial support from the sponsors and it has significant impact on research work. The above figure reveals the funding contribution of sponsors in the research area of covid impact on MSME sector. The highest funding contribution goes to National Natural Science Foundation followed by European Commission, National Office for Philosophy and Sustainable Research, European Social Fund, European Regional Development Fund and so on. These organizations have been contributing in the research field by providing necessary fund to the researchers.

6.0 Limitations of the study:

Current research had been conducted to show the trend of research output concentrating covid-19 impact on MSME sector. But the result of the research can't be generalized. Some limitations of the study have been mentioned below:

1. Primarily the search sting was limited to the keywords of "MSMEs" OR "SMEs" AND "Covid-19".
2. Additionally, the source of database was limited to SCOPUS only.
3. Moreover, only articles and conference paper have been selected to extract the data.
4. Besides, the documents were limited to English language in this research.

7.0 Scope for Future Research:

Future research can be conducted using wide range of keywords, integrating more database like, Web of Science, PubMed, Dimensions and so on, including wide range of documents, and considering documents of different languages to generalize the research output.

8.0 Conclusion:

Most of the business sectors have been facing challenges in running their business activities smoothly due to the covid-19 pandemic effect. MSMEs in the world have a phenomenal monetary issue which is compromising their very presence basically in light of the fact that the effect of stuns to market interest upon medium-sized undertakings surpasses and keeps on developing. Data about the harm to MSMEs and the more extensive economy is bit by bit getting more normal. Because of the wellbeing pandemic, Corona virus has significantly changed the firm and changed its present business practice (Ratten, V., 2020)). To expand on business thinking, new methodologies are expected to prevail on the world market. Specific accentuation was given to the job of social, way of life, and social business visionaries in reacting to current social changes (Ratten, V., 2021)). The study result explored that wide range of research study have been conducted on the impact of covid pandemic towards MSME or SME sector throughout the study period. Researchers from different regions/countries have been suggested some remedial measures for the sustainable development of the sector. Among the countries, Indonesia, United Kingdom, China, India, and Malaysia, occupied the top 5 positions regarding research output in this area of study. Wider range of research on this field of study can help to improve business performance in this sector. Besides, economic development goal achievement can be accelerated through the research studies.

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