

Research on MSMEs in Indonesia: Bibliometric Analysis

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ABSTRACT

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The micro, small, and medium-sized enterprises (MSMEs) of Indonesia are an essential component of the economy of Indonesia. The number of MSMEs in Indonesia has reached 64,2 million, and MSMEs are responsible for 60.6% of Indonesia's gross domestic product (GDP). The majority of the micro, small, and medium-sized enterprise community was forced to engage in creative problem solving and rapid adaptation or run the risk of going out of business. The purpose of this study is to create a bibliometric map of research activities conducted by MSMEs in Indonesia. This research counts and analyzes how many articles about micro, small, and medium enterprises (MSMEs) have been published in Indonesia during the past five years. Bibliometrics and Vosviewer with R-Tool are used for analysis, and the study dataset is seen using the Dimensions database. According to the findings of the research conducted, Tambunan's article titled "Recent evidence of the development of micro, small and medium enterprises in Indonesia," which was published in the Journal of Global Entrepreneurship Research, is getting a lot of attention. He is widely regarded as the most accomplished author in this field. The VOSviewer study reveals that there are six key clusters that have been developed. It is interesting to note that the largest cluster can be located in Covid ; this indicates that research on MSMEs in Indonesia is only relevant while the pandemic is active.

Keywords: MSMEs, VOSviewer, R-Tool, Global Entrepreneurship Research

I. INTRODUCTION

Micro, small, and medium-sized businesses all play an important part in the overall economy of a country, according to the dominant framework that governs research on the financing of small businesses. Micro, small, and medium-sized businesses (also known as MSMEs) play a significant part in contributing to the expansion of regional and national economies. The

lack of capital is the most significant challenge faced by the several varieties of MSMEs that can be found all over Indonesia. The rapid expansion of the financing business provided by FinTech companies is currently providing an alternative that all levels of society can access through financial inclusion. This is one way to socialize the financial sector specifically to make it easier for the public to gain access to financial services[1].

The majority of micro, little, and medium-sized enterprises (MSMEs) in Indonesia are still utilizing e-commerce platforms that are solely concerned with sales and are not yet equipped with strong connections management with their customers after the transaction. There are a high number MSMEs in Indonesia currently[2]. MSMEs help open employment opportunities, contribute to the income of the state in the form of taxes, and make a substantial contribution to GDP. The development MSMEs in Indonesia is unable to be maintained due to a basic issue. This issue is characterized by a lack of knowledge or insight into the process of operating a business, particularly around financial management[3].

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The micro, small, and medium-sized enterprises (MSMEs) of Indonesia are an essential component of the economy of Indonesia. The number of MSMEs in Indonesia has reached 64,2 million, and MSMEs are responsible for 60.6% of Indonesia's gross domestic product (GDP). Increasing the competitiveness of products is possible through the implementation of standards; the fact that products produced by MSME have been standardized on products is evidenced by the fact that the products have been certified (Indonesian National Standard). There is a total of 101 MSMEs in Indonesia that have been granted product certification. This compares to the overall number of MSMEs in Indonesia, which is 64.2 million[5].

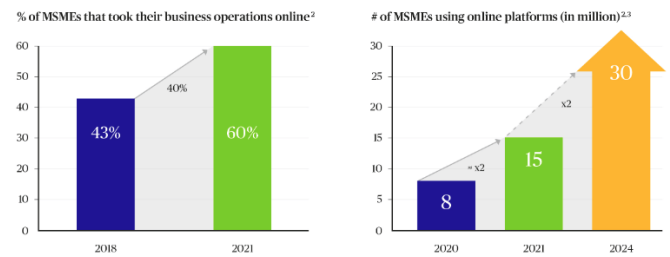


Figure 1. The speed and the extent of digital adoption among Indonesian MSMEs are evident[6]

Most of the micro, small, and medium-sized enterprise community was forced to engage in creative problem solving and rapid adaptation or run the risk of going out of business. During a period that was characterized by lockdowns and public movement restrictions, digitalization swiftly became a lifeline for a significant number of these small firms. MSMEs account for 99% of all firms in Indonesia and contribute 61% of the country's GDP. Accelerating the digitalization of this sector, which serves as the central pillar of the regional economy, has been identified as a crucial step toward improving the resiliency of domestic businesses and bolstering the efforts being made to recover from the epidemic. While the advent of digitization paves the way for new opportunities, it also brings with it significant threats to cybersecurity. This is especially true among owners of MSME, since they may have shifted their operations toward greater digitalization without fully comprehending the dangers and major business expenses involved[6].

Bibliometric research on Indonesian MSMEs are particularly interesting. The purpose of this study is to create a bibliometric map of research activities conducted by MSMEs in Indonesia. This research counts and analyzes how many articles about micro, small, and medium enterprises (MSMEs) have been published in Indonesia during the past five years. Bibliometrics and Vosviewer with R-Tool are used for analysis, and the study dataset is seen using the Dimensions database[7][8][9], [10].

Bibliometric research on MSMEs has been the subject of multiple published studies. A study presents a bibliometric Analysis study on the concept of ERP (Enterprise Resource Planning) management and integration in the MSMEs sector. The purpose of the study is to investigate how ERP implementation in managing transactions and business planning is integrated in real time, with the end goal of producing marketing strategies that have an impact on increasing business results MSMEs. The findings of the study point to the necessity of developing techniques that may be used to assist MSMEs in managing their business and financial reporting by utilizing an ERP system that is straightforward and easy to grasp[11].

According to findings from other studies, the development of the digital economy in Indonesia, particularly Micro, Small, and Medium Enterprises, is on the rise (MSMEs). The digital platform offers a solution for micro, small, and medium-sized enterprises (MSMEs) who are in danger because of the effects of the Covid-19 pandemic. Some initial steps toward reviving the nation's economy have been taken thanks to the participation of the Indonesian government and the business sector. These initiatives included the development of digital platforms such as e-commerce platforms, digital wallets, and numerous applications that support the distribution of products and services that have been widely utilized by various business actors. The findings of this study shed light on the most important aspects of the digital platform for the development of MSMEs in Indonesia. As a result of this study's findings, a method has been suggested that actors in the MSME sector might utilize to analyze the social impact of using digital platforms[12].

Despite this, there have not been many publications resulting from research on MSMEs in Indonesia. As a result, the purpose of this study is to contribute something new to the body of scientific knowledge,

particularly concerning the growth of MSMEs in Indonesia and the challenges they face.

II. METHODS AND MATERIAL

A dataset taken from the Dimensions database, which is said to have coverage that is 30 percent more than that of other databases, was used in this investigation. A scientific database known as Dimensions was developed by Digital Science in the year 2018. Dimensions has more than 106 million published works, more than 3.7 million sponsored articles, more than 34 million patents, and more than 9 million citations of scientific literature. A published search index and linkages to all other organizations are included in the free version of the software. In spite of the fact that the epidemic is not yet over, "MSMEs AND Indonesia" are the keywords that will be employed in the period of 2018-2022.

When processing the results of the crawling of the Dimensions database, Bibliometrics is employed. Bibliometrics is a free and open-source research tool that can be used for quantitative research, including analytical methods to scientometrics and bibliometrics. This program allows you to map the scientific landscape to find research trends and gaps on any subject of your choosing[13].

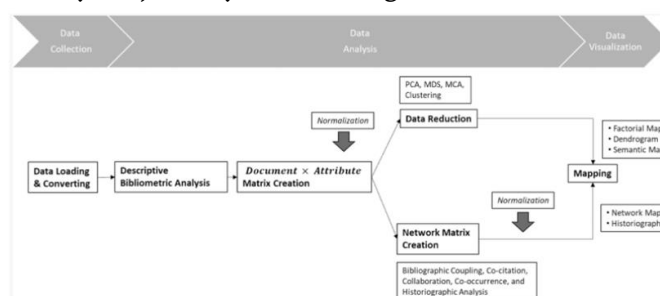


Figure 2. Utilizing Bibliometrics for the scientific mapping workflow[7]

Figure 2 demonstrates how the scientific mapping using Bibliometrics makes use of a dataset that was originally derived from the Dimensions dataset. This dataset was then translated. After that, the data analysis is crafted in the R programming language so

that it may be customized and so that it can serve a diverse array of statistical and graphical applications. In this study, the mapping process is made more efficient and straightforward by utilizing biblioshiny for the analysis[7].

Based on the results of the bibliometric mapping, subject areas and research trends are identified using the literature that is currently available. Bibliometric visualization will be performed with the assistance of VOSviewer, which will be used in the study process. VOSviewer conducts an analysis of the co-occurrence of keywords and the co-occurrence of authors in relation to the issue of MSMEs in Indonesia during the years 2018-2022 in order to determine the path that the current study will take[8].

III. RESULTS AND DISCUSSION

A dataset from the Dimensions database is created using the search terms "MSMEs AND Indonesia" and the time range of 2018 to 2022 as the parameters. Table 1 provides a concise summary of the most important aspects of this dataset.

Table 1. Important data information

Description	Results
Main Information:	
Timespan	2018:2022
Sources (articles-proceeding)	777
Documents	1144
Average years from publication	1.34
Average citations per documents	0.61
Average citations per year per doc	0.21
References	4260
Article	1144
Authors	

Authors	2831
Authors of single-authored documents	204
Authors of multi-authored documents	2627
Authors Collaboration:	
Single-authored documents	215
Documents per Author	0.40
Authors per Document	2.47
Co-Authors per Documents	2.72
Collaboration Index	2.87

Figure 3 shows the number of publications on a relevant topic in the last five years. The dataset recall began in 2018 with 64 articles. The most articles were published in 2021, with a total of 413 articles, but by mid-2022, the number of articles published had increased by more than half, suggesting that publications in 2022 may outnumber those in 2021.

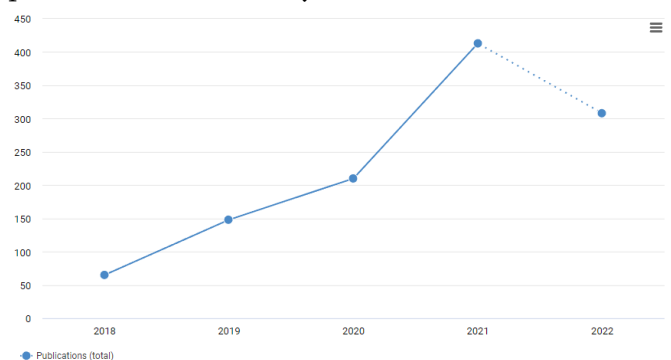


Figure 3. The visualization shows the number of publications published in each year.

According to the findings of the Bibliometrics study, the most important and prominent authors are connected with the term "MSMEs AND Indonesia". Tulus Tahi Hamonangan Tambunan is widely regarded as the most authoritative author on this subject. This indicates that the five names are quite useful in research concerning MSMEs, as shown in table 2.

Table 2. Top five author

No	Name	Organization	Publications	Citations	Citations Means
1	Tulus Tahi Hamonangan Tambunan	Trisakti University, Indonesia	7	74	10.57
2	Zulfi Chairi	Sumatera Utara University, Indonesia	5	1	0.20
3	Puji Handayati Handayati	State University of Malang, Indonesia	5	1	0.20
4	Abrista Devi	Universitas Ibn Khaldun Bogor, Indonesia	4	0	-
5	Agus Hermawan	State University of Malang, Indonesia	3	0	-

Based on the keywords, we also learned how often each article was cited. Table 3 below shows the top five articles in terms of citations, as determined by the bibliometric analysis.

Table 3. Articles with highest citation

No	Citation	Author	Title	Journal
1	43	Tambunan T[14]	“Recent evidence of the development of micro, small and medium enterprises in Indonesia”	Journal of Global Entrepreneurship Research
2	30	Hanggraeni D[15]	“The Impact of Internal, External and Enterprise Risk Management on the Performance of Micro, Small and Medium Enterprises”	Social and New Technology Challenges of Sustainable Business
3	21	Syapsan S[16]	“The effect of service quality, innovation towards competitive advantages and sustainable economic growth: Marketing mix strategy as mediating variable”	Benchmarking: An International Journal
4	16	Tambunan TTH[17]	“The impact of the economic crisis on micro, small, and medium enterprises and their crisis mitigation measures in Southeast Asia with reference to Indonesia”	Asia & The Pacific Policy Studies
5	14	Tjahjadi B[18]	“The Role of Green Innovation between Green Market Orientation and Business Performance: Its Implication for Open Innovation”	Journal of Open Innovation: Technology, Market, and Complexity

Analysis shows that Tulus Tambunan's paper on Journal of Global Entrepreneurship Research, "Recent evidence of the development of micro, small, and medium firms in Indonesia," has received a lot of attention, with a total of 43 citations. Descriptive statistics were used for this investigation. Evidence suggests that MSEs in Indonesia are preponderant, accounting for nearly all businesses although contributing just 58% to 61% of GDP (GDP). While the gender split between MSE owners varies by province, women control 42.84 percent of all MSEs. This rapid expansion of MSEs can mostly be attributed to the effects of poverty.

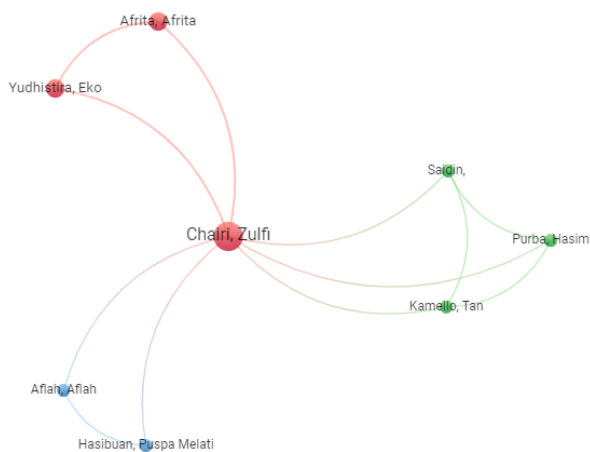


Figure 4. Co-Authorship Analysis

In the meantime, the results of the analysis of co-authorship showed that there were three different clusters totaling seven authors. Figure 4 is a representation of the bibliometric network that was constructed using the software VOSviewer. This representation shows that these three clusters led to a total of 15 writers being co-authors, and there were a total of 12 ties between them. The findings indicate that Zulfi Chairi assumed a central role in each of these three groups, contributing to the work of 9 other authors across 5 publications.

The VOSviewer study reveals six major clusters established with a focus on Covid, Performance, Micro, Study, UMKM, and use. The association strength normalization approach is used in this study.

This method is used because both theoretical and empirical studies show that correlation data can be best adjusted using probabilistic measures. It strongly advocates the use of association forces in scientometric research[19].

The study trend of MSMEs in Indonesia during the past five years is visualized in Figure 5, which presents a depiction of the relationship between each cluster. Curiously, the largest cluster can be found in Covid, which means that study on MSMEs in Indonesia is only of interest while the pandemic is active. This is in line with the findings of a survey carried out by the Bank of Indonesia. The pandemic caused by the COVID-19 virus in Indonesia affected as many as 77.95 percent of the country's Micro, Small, and Medium Enterprises (MSMEs) in the year 2021. The decreased income of MSMEs was caused by the restricted social and economic mobility that occurred during the Covid-19 epidemic[20].

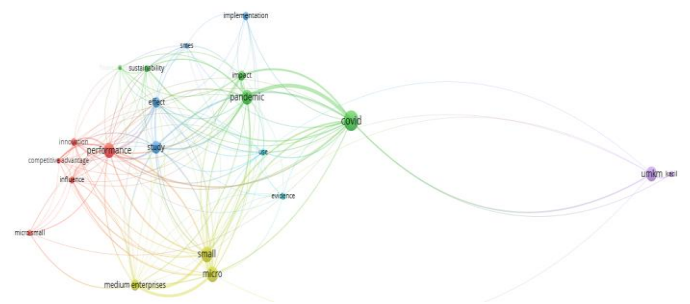


Figure 5. Research Trend MSMEs in Indonesia

IV. CONCLUSION

Bibliometric mapping of research on MSMEs in Indonesia carried out with Biblioshiny and VOSviewer resulted in the discovery of 1144 relevant articles published in 777 journals and proceedings between 2018 and 2022. Tulus Tahi Hamonangan Tambunan is widely regarded as the most accomplished author in this field. According to the findings of the research conducted, Tambunan's article titled "Recent evidence of the development of micro, small and medium enterprises in Indonesia," which was published in the Journal of Global

Entrepreneurship Research, is getting a lot of attention. The article has been cited 43 times. The VOSviewer study reveals that there are six key clusters that have been developed, with an emphasis on Covid, Performance, Micro, Study, UMKM, and use. It is interesting to note that the largest cluster can be located in Covid; this indicates that research on MSMEs in Indonesia is only relevant while the pandemic is active.

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