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**DIGITAL TRANSFORMATION AND MSME FINANCIAL  
PERFORMANCE: SYSTEMATIC LITERATURE REVIEW AND  
BIBLIOMETRIC ANALYSIS**

**Fazlur Rahman Rahawarin<sup>1</sup>, Budi Eko Soetjipto<sup>2</sup>, Cipto Wardoyo<sup>3</sup>**

<sup>1</sup>Faculty of Economics and Business, Universitas Negeri Malang, Indonesia

<sup>2</sup>Faculty of Economics and Business, Universitas Negeri Malang, Indonesia

<sup>2</sup>Faculty of Economics and Business, Universitas Negeri Malang, Indonesia

e-mail: [rahawarinfazlur@gmail.com](mailto:rahawarinfazlur@gmail.com)

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**Abstract**

*Digital transformation is a hot topic for research. Various technological developments encourage various organizations to carry out digital transformation to achieve organizational goals. This is experienced by SMEs in running their business. Various studies that have been conducted have yielded inconsistent results regarding the adoption of digital transformation for MSMEs. This article discusses the extent to which previous research has explored digital transformation carried out by MSMEs that can have an impact on financial performance. This article uses a systematic literature review and bibliometric analysis to explore previous research related to the digital transformation of MSMEs.*

**Keywords:** *digital transformation, MSME, financial performance*

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**1. INTRODUCTION**

The development of digital technology has had a huge impact on business people (ariesmansyah et al, 2019). Digital transformation can also provide financial services more easily and can overcome managerial challenges (Breidbach et al, 2020). The importance of digitalization can be felt in various sectors, from small, medium, and large businesses, even to the government sector (Klierova & Kutik, 2017). Only a handful of government organizations are mature enough to respond well to the development of digital technology. For reasons of financial transparency in government performance, it is important to see how prepared government organizations are in responding to digital technology developments. Jasim and Raewf, 2020 also stated that public sector organizations must run various service programs and with this digitization can provide convenience in developing all service sectors for the progress and goals of the organization. Reddick & Turner, (2012) also explained that digitization can overcome various administrative problems such as bookkeeping and human

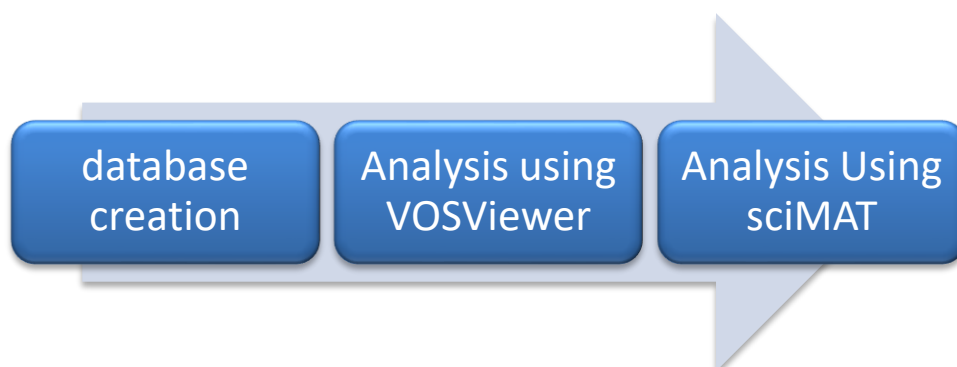
resource assets. This article will provide a systematic literature review and bibliometric analysis which can explain how far digital transformation research is in the field of finance.

## 2. METHOD

This research uses PRISMA analysis (Preferred Reporting Items for Systematic Review and Meta-Analysis) (Anreo-Martinez et al, 2020). The data is taken using the publish or perish application with the Google Scholar database. The keywords used are "Digital Transformation", "Financial Performance", and "SME". There are 2,356 research results from these keywords. Then it is limited to the 2018-2023 timeframe, so the results are 627 articles. Then adjusted the keywords and get the results of 173 articles. And then eliminated by getting easy access to 159 articles.

### Bibliometric Analysis

Bibliometric analysis is used in this article because the bibliometric analysis can analyze and explore large amounts of data (Donthu et al, 2021). Here are the steps in analyzing the bibliometric as follows:



### Data Collection

data diambil dengan menggunakan publish or perish dengan menggunakan database pada google scholar dengan menggunakan kata kunci (digital transformation, financial performance, dan SME) dengan rentang waktu 2018-2023. Dari berbagai kriteria tersebut diperoleh 159 artikel.

### VOSViewer analysis

VOSViewer makes it possible to use several types of analysis, namely co-citation, co-occurrence, co-authorship, and bibliographic coupling (Sharifi et al, 2021). In this study, 159 articles were used to look at co-authorship and co-occurrence analysis. Thus it can be seen in the author's network and the variable network studied by other researchers.

### 3. RESULTS AND DISCUSSION

#### Results

This study uses Google Scholar as a database for online data retrieval. And collected 159 published articles from 2018-2023. In this study, the researcher set a threshold of 1 for joint writing and joint events.

#### Co-authorship

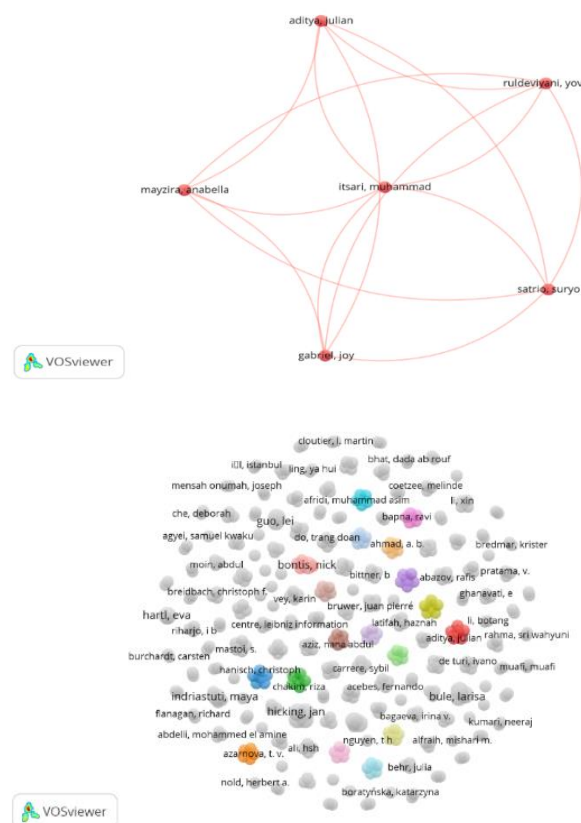


Figure 3. Co-Authorship is not Connected

The results of the VOSViewer processing in the figure shows that 6 authors have a strong relationship with the author's network which are all marked in red. Interconnected authors include Itsari, Ruldeviyanin, Satrio, Gabriel, Mayzira, and Aditya. This explains how the author's relationship in conducting research. whereas in the unconnected figure, 429 authors research digital transformation and its relationship to financial performance and SMEs.

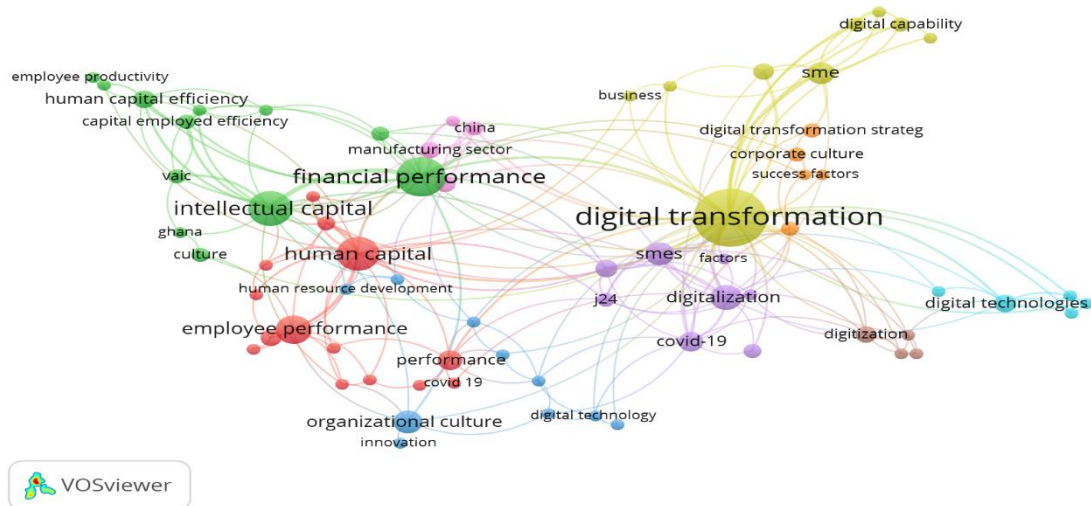
**Co-occurrence**

Figure 4. Connected Co-Occurrence

From the results of the VOSViewer analysis in Figure 4, it can be seen that there are 9 clusters marked with different colors, and there are 71 items from various studies. cluster 1 has 14 items which are marked in red, while the second cluster has 12 items which are marked in green, the third cluster contains 10 items marked in blue, the 4th cluster contains 9 items marked in yellow, cluster 5 has 8 items marked with purple, cluster 6 contains 5 items marked in blue, cluster 7 contains 5 items colored orange, cluster 8 contains 4 items marked with brown, and the last is cluster 9 which contains 4 items marked with green color. Various clusters can make it easier for researchers to see the relationship between related variables, which means clusters can make it easier to see the relationship between variables with the same topic and relationship, while seeing more broadly how the relationship between all variables is, it can be seen how the relationship between variables is detailed.

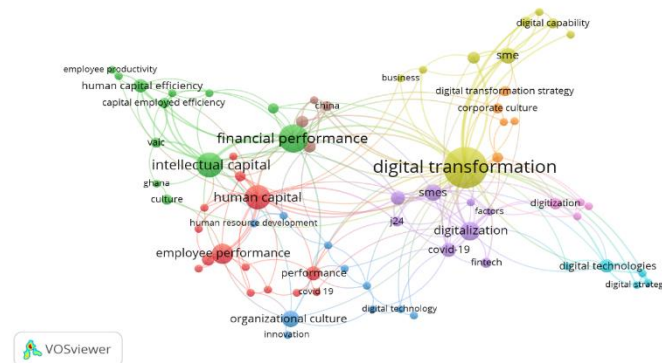


Figure 5. Co-Occurrence is Not Connected

The results of the analysis in Figure 4 can also be seen how the relationship between the variables studied. The size of the circle image indicates that more and more studies are examining this variable. It can be seen that the biggest circle is digital transformation, which is the variable that has the topic most often used in research by the authors, followed by financial performance as the second-ranking variable, then followed by human capital, intellectual capital, employee performance, organizational culture, and digitalization. The large number of researchers researching related variables means that these variables are often used in research. while the smaller the circle, the less research that uses this variable. This can be a consideration for new researchers who will research to be able to take variables that are rarely studied by previous researchers. As an example, future researchers can see how digital transformation is in developing countries after the Covid-19 pandemic, which has rarely been studied by previous researchers. With this research, further researchers can use it as a basis for determining relevant variables, and are still rarely studied by future researchers so that they can contribute and provide novelty in future research.

Figure 5 explains how the variables are connected and not related. It can be seen that almost all variables are related to each other. It can be concluded that there are almost no unrelated variables.

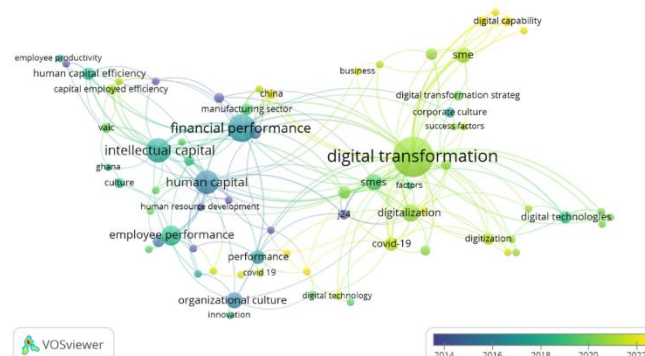


Figure 6. Overlay Virtualization

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The figure explains the research novelty of each variable. It can be seen that digital transformation is still a variable that tends to be more recently researched because the color is closer to yellow compared to other variables such as financial performance, organizational culture, human capital, and intellectual capital. Research on MSMEs and Covid-19 is also a hot topic for discussion. So it is suggested that future researchers can take related variables or topics that are close to yellow.

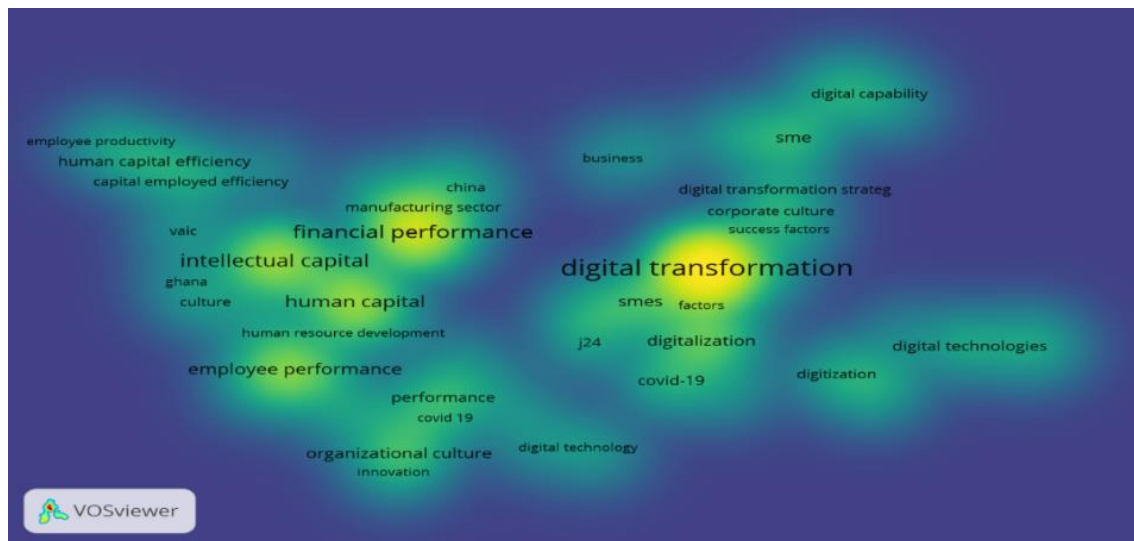


Figure 7. Density Virtualization

For more details, here is a display from VOSViewer which shows that digital transformation has more research even though it has high novelty, the more yellow, the more research is done. Because this research takes the keywords digital transformation, most of them are digital transformation, it can still be seen in addition to digital transformation, where the topics are getting dimmer, so these topics are still rarely researched.

#### 4. DISCUSSION

Digital transformation has a huge impact on various sectors and organizations today, from businesses to government agencies (Klierova & Kutik, 2017). Sebastian et al (2020) explained that digital transformation can enable organizations to achieve maturity in various programs such as organizational processes, human resources, and service models. Ariesmansyah et al (2019) explained that technological advances have had a significant impact on all sectors of government, especially in the financial sector. A high level of digitalization can provide transparency, and increase employee creativity in innovating and serving the public. This was also reinforced by Höchtl et al (2016) who explained that technology can have an impact on government performance, especially in the financial sector.



The results of another study conducted by Boratyńska (2019) explain that technological developments, especially in the fintech sector, can provide added value to the financial industry. This is following research by Zavolokina et al (2016) which explains that the financial industry is heavily influenced by digitalization, and that is why fintech emerges, namely collaboration between the financial industry and digital technology. Schueffel (2017) also explained that digital transformation can provide changes in business models and create opportunities for new businesses. Breidbach et al (2020) stated that digital transformation can help managers in the financial sector they can manage the social aspects of the company. Ren & Li (2023) explains that digital transformation can effectively improve a company's financial performance. İl & Müdürlüğü (2020) explain that it not only has advantages but also has drawbacks, namely it can cause uncertainty for employees because adopting digital technology requires time to master it.

Digital transformation has a significant impact on changing the company's business activities, namely by increasing modern technology. The higher the effectiveness of digitalization, the better the company's performance (Do et al, 2022). Vial (2019) explains that digital transformation can increase the value of an organization by providing significant changes, namely combining information technology, computing, communication, and connectivity. Guo & Xu (2021) provided research results similar to previous research, he explained that digital transformation can improve processes in operational and financial performance. Vial (2019) explains that financial success also depends on how fast a company responds in taking advantage of the opportunities offered by digital transformation. Nasiri et al (2022) explained that digital transformation is a major factor in financial success which can be divided into 3 strategies namely digital orientation, digital intensity, and digital maturity. digital technology can pave the way for functional change, leading to operational and financial advantages, cost efficiencies, and competitive advantages for companies through monitoring and optimization (Martinez et al, 2019).

Indriastuti & Kartika (2018) explained that out of 282 MSMEs in Central Java, it was shown that digitalization and dynamic capabilities can improve the financial performance of MSMEs. However, there is research by Kurniawan & Soediantono (2022) explaining the opposite, in his research results he explains that digital transformation cannot significantly affect financial performance. This is confirmed by research results (Chen and Srinivasan, 2020) that digitalization will indeed have a negative impact in the short term on financial performance because digitalization requires high costs. On the other hand, Ionaşcu et al (2022) explains that digital transformation will be more advanced if it is carried out by companies that carry out social responsibility. Rachinger et al (2018) also explained that digitalization can expand the scope of business and meet the needs of the digital economy. Mangifera and Mawardi (2022) explain in their research results, digital transformation has a positive effect on the financial performance of MSMEs. This is important to do to improve

their digital skills and knowledge in developing digital products to meet customer needs to increase their competitive advantage. Digitalization can also be used for the development of new digital business models to help create and provide added value to companies (Gomez-Trujillo and Gonzalez-Perez, 2021).

## **5. CONCLUSION**

Digital transformation has greatly affected all forms of organization from business organizations to government organizations. Digital transformation can also affect all types of companies from small, to medium and large. Various factors that influence the success of digital transformation include resources, corporate culture, and finances. Although many studies state that digital transformation can affect company performance, especially company financial performance, other studies present research results to the contrary. The reason is that technology requires higher costs, qualified resources, strong culture, and readiness to face various technological changes. Then further studies are needed which can further examine digital transformation factors, especially in MSME companies because there is still little research on digitization in MSMEs.



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