FINANCE INNOVATIONS DIGEST
Volume 1, Issue 2, December 2023| pp. 107-119
https://doi.org/10.63208/21013-780

E- ISSN: 3047-5538

Digitalization, Innovation Capability, and Organizational Performance: A Literature Review

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ABSTRACT

The rapid development of digital technology has encouraged organizations to transform various operational aspects to improve effectiveness, efficiency, and competitiveness. This study aims to analyze the relationship between digitalization, innovation capability, and organizational performance through a literature review approach. The research method employed is a literature review based on scientific articles, academic books, and institutional reports published over the last five years. The analysis was conducted through the processes of identifying, selecting, categorizing, and synthesizing relevant literature. The findings indicate that digitalization contributes to improved organizational performance by enhancing operational efficiency, decision-making quality, and adaptability to environmental changes. Furthermore, innovation capability plays a significant role in linking digitalization with organizational performance improvement. Organizations that effectively utilize digital technologies to generate innovation tend to achieve stronger competitiveness and long-term sustainability than those focusing solely on technology implementation. This study highlights that the integration of digitalization and innovation capability represents a strategic factor that supports sustainable organizational performance in an increasingly dynamic business environment.

Keywords: *Digital Transformation, Digitalization, Innovation Capability, Literature Review, Organizational Performance.*

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ARTICLE HISTORY
Received : July 4, 2023
Final Revised : October 27, 2023
Accepted : November 12, 2023
Published : December 30, 2023

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1. | INTRODUCTION

The development of digital technology in recent years has driven significant changes to various organizational and business activities. Digitalization is no longer seen as just a process of technology adoption, but rather as an overarching transformation that affects the way organizations create value, manage resources, and maintain competitiveness in an increasingly dynamic environment. Digital transformation allows organizations to improve operational efficiency, accelerate decision-making processes, and expand access to information needed to support the sustainability of business activities (Vial, 2021). Along with the increasing use of digital technology, organizations in various sectors are required to be able to adapt to these changes in order to remain competitive and relevant in the face of the development of an increasingly complex business environment (OECD, 2020).

Digitalization also encourages the emergence of new opportunities that organizations can take advantage of to improve performance. Through the use of digital technology, organizations can develop new business models, strengthen relationships with customers, and increase the effectiveness of internal processes. Verhoef et al. (2021) explain that digital transformation has become one of the strategic factors that is able to create a competitive advantage through the integration of technology into various organizational activities. In addition, the development of digital technology has expanded the space for organizations to innovate more quickly and efficiently so that they are able to respond to changing market needs in a more adaptive manner (Kraus et al., 2021).

In this context, innovation is an important factor that determines the success of organizations in taking advantage of the opportunities generated by digitalization. Innovation is not only concerned with the creation of new products or services, but also includes the development of processes, working methods, and strategies that enable organizations to generate added value in a sustainable manner. Nambisan et al. (2019) stated that the development of digital technology has changed the innovation process so that organizations have a greater opportunity to develop ideas and solutions that are relevant to market needs. Thus, the ability to innovate is one of the sources of competitive advantage that can help organizations improve performance in the long run.

Various studies show that digitalization and innovation have a close relationship with improving organizational performance. Ferreira et al. (2020) found that organizations that are able to integrate digital technology with innovation activities tend to show better performance than organizations that have not made optimal use of technology. These findings are reinforced by Warner and Wäger (2019) who explain that dynamic capabilities built through digital transformation can increase an organization's capacity to adapt to changes in the business environment while strengthening overall organizational performance.

However, the results of previous studies still show mixed findings. Some studies conclude that digitalization has a positive impact on organizational performance, while

other studies show that the digital transformation process can also increase operational costs, technology investment risks, and competitive pressures that ultimately do not always result in direct performance improvements. Katsiampa et al. (2022) found that adaptation to digitalization requires considerable organizational costs and adjustments so that the benefits obtained do not always appear in a short period of time. In addition, most research still focuses on the direct influence of digitalization on performance without explaining the role of innovation as a mechanism linking the two variables.

Based on these conditions, there are still research gaps that need to be studied further. First, there are still inconsistencies in research results regarding the influence of digitalization on organizational performance. Second, the role of innovation as a link between digitalization and organizational performance is still relatively limited in the literature. Third, most of the previous research was conducted in specific sectors or contexts, so a more general study is needed to expand understanding of the relationship between digitalization, innovation, and organizational performance. Therefore, this study aims to analyze the relationship between digitalization, innovation capabilities, and organizational performance through a literature review approach based on various research findings published over the last five-year period. The results of the research are expected to make a theoretical contribution to the development of digital transformation and innovation literature and provide practical implications for organizations in improving performance in a sustainable manner.

2. | LITERATURE REVIEW

Digitization

Digitalization is the process of utilizing digital technology to change the organization's activities, processes, and operational models so that it can create greater value than conventional approaches. In recent developments, digitalization is not only understood as the use of technological devices, but also as an overarching transformation that affects the strategy, structure, culture, and way organizations interact with various stakeholders. This transformation allows organizations to gain faster access to information, improve operational efficiency, and strengthen their ability to respond to dynamic environmental changes (Vial, 2021).

The development of digital technology has prompted organizations to integrate various information systems, data analytics, artificial intelligence, and digital platforms into their daily business activities. The integration provides an opportunity for organizations to improve service quality, expand market reach, and accelerate decision-making processes. In addition, digitalization also allows organizations to develop new business models that are more flexible and adaptive to changing customer needs. Therefore, digitalization is seen as one of the strategic factors that plays an important role in creating competitive advantages and increasing organizational competitiveness in the digital economy era (Verhoef et al., 2021).

While it offers a wide range of benefits, the implementation of digitalization also presents a number of challenges. Organizations need to invest in technology, improve human resource competence, and adjust work processes to make optimal use of technology. The success of digitalization is determined not only by the availability of technology, but also by the organization's ability to manage the changes that come with it. Therefore, digitalization should be seen as a transformation process that requires the support of the organization's overall strategy and capabilities to generate sustainable benefits (Kraus et al., 2021).

Innovation Capabilities

Innovation ability is the capacity of an organization to create, develop, and implement new ideas that can provide added value for the organization and its stakeholders. These capabilities include the process of seeking new knowledge, developing products or services, improving operational processes, and creating more effective business models. In an increasingly competitive business environment, the ability to innovate is an important factor that allows organizations to maintain sustainability and improve performance in the long term (Nambisan et al., 2019).

The development of digital technology has changed the way organizations innovate. Organizations are no longer completely dependent on internal resources, but can leverage digital technology to obtain information, collaborate with various parties, and develop solutions that are more in line with market needs. Digital transformation also allows the innovation process to take place faster because it is supported by wider access to data and better analytical capabilities. Thus, digitalization and innovation have a mutually reinforcing relationship in creating an organization's competitive advantage (Appio et al., 2021).

High innovation capabilities allow organizations to respond to environmental changes more adaptively than their competitors. Organizations that are able to generate innovation sustainably tend to have greater opportunities to increase productivity, expand markets, and maintain business sustainability. Therefore, innovation is not only seen as a result of organizational activities, but also as a strategic capability that needs to be continuously developed to face the various challenges that arise in a dynamic business environment (Warner & Wäger, 2019).

Organizational Performance

Organizational performance is the level of success of the organization in achieving the goals that have been set through the effective and efficient use of its resources. Organizational performance is generally measured through various indicators, such as productivity, profitability, growth, service quality, customer satisfaction, and the organization's ability to maintain the sustainability of its operations. In the perspective of modern management, organizational performance is not only related to the achievement of financial results, but also reflects the organization's ability to adapt to changes in the business environment (Ferreira et al., 2020).

The improvement of organizational performance is greatly influenced by the organization's ability to take advantage of opportunities arising from technological developments and innovations. Organizations that are able to integrate digital technology into their operational activities tend to have more efficient work processes, better service quality, and higher ability to create value for customers. This condition can ultimately increase competitiveness and strengthen the organization's position in the face of increasingly fierce competition (Anwar & Ali Shah, 2020).

Nonetheless, improving organizational performance does not occur automatically after the implementation of digital technology. Organizations need to have adequate innovation capabilities so that the technology used can produce optimal benefits. Several studies show that the success of digital transformation is greatly influenced by an organization's ability to develop innovation and adjust its business strategy. Thus, the relationship between digitalization, innovation, and organizational performance is an important aspect that needs to be understood to explain how organizations can achieve sustainable competitive advantage (Katsiampa et al., 2022).

3. | RESEARCH METHOD

This study uses a qualitative approach with the library research method to analyze the relationship between digitalization, innovation capabilities, and organizational performance based on various previously published research results. Literature studies were chosen because they allow researchers to gain a comprehensive understanding of the development of concepts, empirical findings, and research gaps related to the topic being studied. Through this approach, research data is not obtained directly from respondents, but comes from various relevant scientific sources and has high academic credibility. The main focus of the research is to identify, review, compare, and synthesize various research findings that discuss the influence of digitalization on organizational performance as well as the role of innovation capabilities in supporting the success of digital transformation.

The data collection process is carried out through searching literature derived from scientific journal articles, academic books, reports of international organizations, and other research documents indexed on reputable scientific databases such as Google Scholar. The criteria for selecting library sources are determined based on the relevance of the research theme, the quality of the publication, and the year of publication. To maintain consistency with the focus of the research, the literature used was limited to publications over the last five-year period. Some of the main references used in this study include studies on digital transformation, organizational innovation, dynamic capabilities, business sustainability, and organizational performance put forward by Vial (2021), Verhoef et al. (2021), Kraus et al. (2021), Nambisan et al. (2019), Warner and Wäger (2019), Ferreira et al. (2020), and various other relevant researches.

The stages of data analysis are carried out through the process of reduction, categorization, and literature synthesis. At the reduction stage, the various sources that

have been collected are selected based on relevance to the research objectives. Furthermore, literature that meets the criteria is grouped into several main categories, namely digitalization, innovation capabilities, and organizational performance. The next stage is synthesis, which is integrating various research results to find patterns of relationships between variables, identify similarities and differences in findings, and formulate conclusions that can explain the phenomenon being studied. Through this process, this research is expected to be able to provide a systematic overview of the role of digitalization and innovation in improving organizational performance while identifying opportunities for future research development.

4. | RESULTS

The results of the literature study show that digitalization has developed into one of the strategic factors that affect the success of organizations in facing increasingly dynamic business environment changes. Various studies analyzed show that the use of digital technology is able to increase operational efficiency, accelerate business processes, and expand organizational access to information resources needed for decision-making. Digitalization not only serves as a tool to support operational activities, but also becomes the main foundation in the organizational transformation process oriented towards increasing competitiveness and sustainability of performance. This finding is in line with the view of Vial (2021) who states that digital transformation is a process of organizational change that involves the integration of digital technology to create new value for organizations and stakeholders.

Analysis of various literature shows that digitalization provides an opportunity for organizations to develop more flexible and adaptive business models. Organizations that are able to integrate digital technology into their operational activities tend to have better ability to respond to changing market needs than organizations that still rely on conventional approaches. In addition to increasing efficiency, digital technology also allows organizations to obtain information in real time so that the decision-making process can be carried out faster and more accurately. This condition supports the argument put forward by Verhoef et al. (2021) that digital transformation has become one of the essential elements in modern organizational strategies to create a sustainable competitive advantage.

Other findings obtained from a literature study show that digitalization has a close relationship with an organization's innovation capabilities. Various studies explain that digital technology allows organizations to access a wider source of knowledge, strengthen collaboration, and accelerate the development of new ideas that can be applied in organizational activities. In this context, digitalization not only functions as a technological tool, but also as an enabler that supports the creation of innovation in a sustainable manner. Kraus et al. (2021) explain that organizations that successfully carry out digital transformation generally have a higher level of innovation because digital technology provides greater opportunities to explore and develop new solutions.

Innovation ability is one of the most frequently found factors in the literature as a variable that explains the success of organizations in utilizing digitalization. Organizations that have strong innovation capabilities tend to be able to turn the opportunities generated by digital technology into products, services, and work processes that provide added value. Nambisan et al. (2019) emphasized that the development of digital technology has changed the innovation paradigm from previously closed to more open, collaborative, and knowledge-based. These changes allow organizations to develop innovations faster and more efficiently than in previous periods.

In addition, the results of the analysis show that innovation capabilities contribute significantly to improving organizational performance. Organizations that consistently innovate have better ability to cope with changing environments, increase productivity, and maintain their competitive position. These findings are supported by Warner and Wäger (2019) who explain that dynamic capabilities built through innovation allow organizations to adapt their resources and strategies according to the demands of an ever-changing environment. Thus, innovation can be seen as one of the important mechanisms that bridges the relationship between digitalization and organizational performance.

Various studies have also shown that organizations that are able to integrate digitalization and innovation simultaneously tend to achieve better performance results than organizations that focus on only one of these aspects. Ferreira et al. (2020) found that organizations that leverage digital technology to support innovation activities show increased productivity, operational efficiency, and the ability to create higher value. The findings indicate that the benefits of digitalization come not only from the use of technology itself, but also from the ability of organizations to leverage technology to generate innovations that are relevant to market needs.

Table.1 below summarizes the results of the synthesis of literature used in this study.

Yes	Researcher	Research Focus	Key Findings
1	Nambisan et al. (2019)	Digital innovation	Digital technology accelerates the innovation process
2	Warner & Wäger (2019)	Dynamic capabilities	Dynamic capabilities support organizational adaptation
3	Nosratabadi et al. (2019)	Sustainable business	Innovation supports organizational sustainability
4	OECD (2020)	Digital transformation	Digitalization increases efficiency and competitiveness
5	Ferreira et al. (2020)	Innovation and performance	Innovation improves organizational performance
6	Bocken & Geradts (2020)	Business model innovation	Business model innovation strengthens sustainability

7	Verhoef et al. (2021)	Digital transformation	Digitalization strengthens competitive advantage
8	Kraus et al. (2021)	Digital transformation research	Digital transformation improves adaptability
9	Vial (2021)	Digital transformation	Digitalization creates new organizational changes and value
10	World Bank (2021)	Digital economy	Technology accelerates growth and productivity
11	Appio et al. (2021)	Innovation management	Innovation is an important factor in digital transformation
12	Anwar & Ali Shah (2020)	Innovation capability	Ability to innovate to improve performance
13	IMF (2021)	Digital economy transformation	Digitalization strengthens economic efficiency
14	Katsiampa et al. (2022)	Digitalization and performance	Digitalization provides both benefits and challenges

The results of the literature synthesis also show that the success of the implementation of digitalization is greatly influenced by the readiness of the organization to develop internal capabilities. Organizations that have competent human resources, a strong culture of innovation, and adequate managerial support tend to be more successful in utilizing digital technology. On the other hand, organizations that do not have such readiness often have difficulty in obtaining the optimal benefits from the technology investments made. These findings reinforce the view of Appio et al. (2021) that the success of digital transformation does not only depend on technological aspects, but also on the organization's ability to effectively manage the innovation process.

In the perspective of organizational performance, most of the studies analyzed show a positive relationship between digitalization and performance improvement. Organizations that successfully integrate digital technology into their business activities generally experience increased productivity, cost efficiency, service quality, and customer satisfaction. The World Bank (2021) explains that the use of digital technology allows organizations to create more effective processes so that they can increase the economic value produced. Similar results were also found by the OECD (2020) which stated that digital transformation contributes to increasing the competitiveness and ability of organizations to deal with environmental changes.

However, the results of the literature study show that the relationship between digitalization and performance is not always direct. In many cases, the benefits of digitalization can only be felt if the organization is able to develop adequate innovation capabilities. Anwar and Ali Shah (2020) emphasized that the ability to innovate plays an important role as an important factor that determines the success of an organization in converting its resources into better performance. Therefore, innovation can be seen as a mechanism that explains how digitalization produces a positive impact on organizational performance.

In addition to generating various benefits, several studies have also identified a number of challenges that arise in the digitalization process. Katsiampa et al. (2022) found that the implementation of digital technology requires a large investment and can increase the operational complexity of organizations. This condition causes the benefits of digitalization not always to be felt in the short term. In addition, the changes produced by digital transformation often require organizations to make adjustments to their structures, cultures, and strategies. If the adaptation process does not go well, then the expected benefits of digitalization have the potential to not be achieved optimally.

The results of the literature study also show that innovation has an important role in supporting organizational sustainability. Nosratabadi et al. (2019) explained that organizations that are able to develop innovation sustainably tend to have better ability to maintain their existence and competitiveness. These findings are reinforced by Bocken and Geradts (2020) who stated that business model innovation can help organizations create economic value while maintaining sustainability in the long term. Thus, the relationship between digitalization, innovation, and organizational performance is not only related to the achievement of short-term results, but also contributes to the future sustainability of the organization.

Overall, the results of this study show that digitalization, innovation capabilities, and organizational performance are three interrelated concepts. Digitalization creates opportunities for organizations to improve efficiency and expand access to information resources. The ability to innovate allows organizations to take advantage of these opportunities into various forms of useful added value. Furthermore, the combination of digitalization and innovation contributes to improving organizational performance and strengthening the organization's ability to maintain sustainability in the midst of ongoing environmental changes. The findings also strengthen the argument that innovation has a strategic role in explaining the relationship between digitalization and organizational performance as shown in various studies published over the past five-year period.

5. | DISCUSSION

The results of the study show that digitalization has an important role in supporting the improvement of organizational performance, both directly and through strengthening innovation capabilities. These findings reinforce the view that digital transformation is not just a process of technology adoption, but rather a strategic shift that affects the way organizations create value and maintain competitiveness. Digitalization allows organizations to gain wider access to information, improve operational efficiency, and accelerate the decision-making process so that they are able to adapt to rapidly changing environments (Vial, 2021). Thus, digitalization can be seen as one of the factors that contribute to increasing organizational effectiveness and productivity.

The research findings also show that innovation capabilities are an important element that explains how digitalization produces a positive impact on organizational performance. The results of the literature synthesis indicate that organizations that are able to utilize digital technology to develop new ideas, products, services, and processes tend to get greater benefits than organizations that only focus on technology implementation. This condition supports the argument that innovation plays a role as a mechanism that links digitalization with improving organizational performance. These findings are in line with the research of Nambisan et al. (2019) which affirms that digital technology has changed the innovation process to be more open, collaborative, and knowledge-based so that it can generate greater value for organizations.

In addition, the results of the study successfully answered one of the research gaps that have been identified in the introduction, namely regarding the inconsistency of the relationship between digitalization and organizational performance. Some previous studies have shown that digitalization has a positive impact on performance, while other studies have found that the benefits of digitalization do not always appear directly. Based on the results of the synthesis carried out, these differences can be explained through the existence of innovation capabilities as a factor that affects the effectiveness of the use of digital technology. Organizations that have high innovation capabilities tend to be better able to turn digital investments into performance improvements than organizations that have a low level of innovation (Appio et al., 2021).

The findings of the study also show that the success of digital transformation is not only determined by the availability of technology, but also by the readiness of the organization to manage the changes that occur. Organizations need to develop competent human resources, adaptive work cultures, and dynamic capabilities that enable organizations to respond effectively to environmental changes. These results support the view of Warner and Wäger (2019) who stated that dynamic capabilities are an important factor that enables organizations to take advantage of the opportunities generated by digital transformation. In other words, digital technology will only provide optimal benefits if it is supported by adequate organizational capabilities.

On the other hand, the study also found that digitalization does not always produce positive impacts in the short term. Some literature shows that the implementation of digital technology requires large investments, changes in work processes, and adjustments to organizational structures that can incur additional costs in the early stages. These findings are in line with the results of research by Katsiampa et al. (2022) which show that digitalization can increase operational complexity and competitive pressures if not managed properly. Therefore, organizations need to view digitalization as a long-term strategic investment that must be integrated with the organization's innovation capabilities and overall strategy.

Overall, the results of the study show that the relationship between digitalization, innovation capabilities, and organizational performance is complementary. Digital transformation creates new opportunities for organizations, innovation capabilities turn

those opportunities into added value, and the increase in added value ultimately contributes to the continuous improvement of organizational performance. These findings reinforce the results of previous research that affirmed the importance of integration between digitalization and innovation as the basis for the formation of competitive advantage in the modern business environment (Verhoef et al., 2021; Anwar & Ali Shah, 2020).

6. | CONCLUSION

This study aims to analyze the relationship between digitalization, innovation capabilities, and organizational performance through a literature review approach to various literature published over the last five-year period. The results of the study show that digitalization has become one of the strategic factors that plays a role in increasing the effectiveness, efficiency, and competitiveness of organizations. The use of digital technology allows organizations to gain wider access to information, accelerate the decision-making process, and improve adaptability to dynamic environmental changes.

In addition, this study found that innovation capabilities have an important role in explaining the relationship between digitalization and organizational performance. Innovation allows organizations to transform the opportunities generated by digital technology into various forms of added value, both in the form of products, services, work processes, and more effective business models. Thus, the success of digitalization is not only determined by the use of technology, but also by the organization's ability to develop and implement innovations in a sustainable manner.

The study also shows that the relationship between digitalization and organizational performance is not always straightforward. The ability to innovate plays a role as a factor that strengthens the effectiveness of the use of digital technology so that it can produce more optimal performance improvements. Therefore, organizations need to integrate digitalization strategies with the development of a culture of innovation, improving the competence of human resources, and strengthening organizational capabilities. Through these integrations, organizations can improve performance while maintaining sustainability and a competitive advantage in the long term amid an ever-changing environment.

Acknowledgment

We gratefully acknowledge the contributions of individuals who supported the completion of this article.

Funding Information

This research did not receive any funding.

Conflict of Interest Statement

The authors declare that there is no conflict of interest.

Ethical Approval and Originality Statement

Ethical approval was obtained for this study. The manuscript represents original work and has not been previously published, nor is it under consideration by another journal.

Data Disclosure Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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