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Economic Ecosystems, Innovation, and Digitalization for Sustainable Economic Growth

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ABSTRACT

Economic growth in the modern era is increasingly influenced by the ability of economic actors to collaborate within interconnected ecosystems. This study aims to analyze the role of economic ecosystems in supporting economic growth by integrating innovation, entrepreneurship, and digitalization. The research employs a descriptive qualitative approach through a literature review. Data were collected from relevant scientific articles and academic publications published over the last five years. The analysis was conducted through the identification, classification, and synthesis of literature to examine the relationships among economic ecosystems, innovation, entrepreneurship, and digital transformation. The findings indicate that economic ecosystems play a significant role in creating an environment that supports knowledge exchange, collaboration, and effective resource utilization. Innovation and entrepreneurship are identified as key drivers of economic value creation, while digitalization serves as a connecting mechanism that strengthens interactions among economic actors. The integration of these elements contributes to the development of a more adaptive, inclusive, and sustainable economic growth model. This study provides a conceptual contribution by enhancing the understanding of ecosystem-based approaches to economic development in the digital era.

Keywords: *Digitalization, Economic Ecosystem, Economic Growth, Entrepreneurship, Innovation.*

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1. | INTRODUCTION

The development of the global economy in recent decades shows increasingly dynamic changes in line with increasing market integration, advances in digital technology, and changes in the pattern of interaction between economic actors. This transformation has encouraged the formation of an economic environment that no longer depends on the individual capabilities of organizations alone, but on the ability of various actors to collaborate in creating economic value together. In this context, modern economic growth is increasingly influenced by the interconnectedness between the business sector, government, educational institutions, investors, and society that form an interdependent and integrated economic system (Jacobides et al., 2018; Audretsch et al., 2019).

In the midst of increasing economic complexity, innovation is one of the main factors that determine the success of economic development and the competitiveness of an economic system. Innovation not only plays a role in generating new products and services, but also drives increased productivity, efficiency, and the creation of broader economic opportunities. A number of studies show that the ability of an economic system to create and adopt innovation contributes to increasing long-term economic growth and the sustainability of economic development. Therefore, innovation is seen as an important foundation in facing the challenges of an increasingly competitive and digitized economy (Kraus et al., 2020; Cavallo et al., 2019).

In addition to innovation, entrepreneurial activities also play a strategic role in encouraging economic growth. Entrepreneurship contributes to job creation, new business development, increased investment, and acceleration of the spread of innovation into various economic sectors. In the modern economy, the success of entrepreneurial activities is not only determined by the individual capacity of business actors, but also by the environment that is able to support the process of creating and developing businesses in a sustainable manner. This environment includes access to knowledge, financial resources, technology, business networks, and institutional support that allows business actors to develop optimally (Ferreira et al., 2019; Audretsch et al., 2019).

This paradigm shift gave birth to the concept of an entrepreneurial ecosystem that emphasizes the importance of the interaction of various economic actors in creating conditions conducive to innovation and economic growth. This concept explains that economic success is no longer understood as the result of independent organizational activities, but rather as the result of collaboration involving various stakeholders who support each other. Bouncken and Kraus (2021) explain that the entrepreneurial ecosystem is a social and economic environment formed by various actors who are interconnected through the exchange of resources, knowledge, and institutional support to produce productive economic activities. This ecosystem approach is increasingly relevant in understanding the dynamics of the contemporary economy characterized by a high level of connectivity and collaboration between organizations.

On the other hand, the development of digital technology has accelerated the process of economic transformation and expanded opportunities for collaboration between economic actors. Digitalization allows information exchange to take place faster, expand access to markets, improve business process efficiency, and create new business models that are more adaptive to changing environments. Various studies show that digital technology not only functions as a tool to support economic activities, but also as a factor that strengthens relationships between actors in an economic ecosystem so that it is able to increase innovation capacity and create economic value collectively (Kraus et al., 2019; Bouncken & Kraus, 2021).

However, studies on the relationship between innovation, entrepreneurship, digitalization, and economic ecosystems still show some research gaps. Most previous research has tended to examine innovation, entrepreneurship, and digital transformation separately. In addition, many studies still focus on the level of individual organizations or companies so that they do not provide a comprehensive understanding of how interactions between economic actors can form a more productive and sustainable economic system. Research on the role of digitalization as a key link in strengthening relationships between economic actors also still needs further development, especially in explaining its contribution to ecosystem-based economic growth (Fernandes & Ferreira, 2020; Scott et al., 2022).

Based on these conditions, this study aims to analyze the role of the economic ecosystem in supporting economic growth through the integration of innovation, entrepreneurship, and digitalization. This research is expected to enrich the development of literature on the economic ecosystem approach as well as provide a conceptual understanding of the importance of collaboration between economic actors in creating sustainable economic growth in the digital era.

2. | LITERATURE REVIEW

Entrepreneurial Ecosystem

The concept of an entrepreneurial ecosystem developed as an approach that explains how various economic actors interact to create an environment that supports entrepreneurial activities and economic growth. In contrast to the traditional approach that focuses on individual organizations, the ecosystem approach places relationships between actors as a key factor in creating economic value. In this perspective, governments, educational institutions, the business sector, investors, supporting institutions, and society play a role as interconnected components in a system that influences the success of economic and entrepreneurial activities (Jacobides et al., 2018).

The entrepreneurial ecosystem not only functions as a forum for collaboration, but also as a means of exchanging resources, knowledge, technology, and institutional support needed to create innovation. Audretsch et al. (2019) explained that the existence of an effective ecosystem is able to increase economic productivity through

strengthening entrepreneurial capacity, creating new businesses, and accelerating the diffusion of innovation. Thus, the success of an economic system is determined not only by the individual qualities of business actors, but also by the effectiveness of the relationships built among all actors involved.

Furthermore, Bouncken and Kraus (2021) emphasized that the entrepreneurial ecosystem is a social and economic environment that is formed through the connection of various parties in creating productive economic activities. These interactions allow for the formation of collaborative networks that promote sustainable economic growth. Therefore, the entrepreneurial ecosystem is an important framework in understanding the dynamics of the modern economy that is increasingly complex, integrated, and collaboration-based.

Innovation and Economic Growth

Innovation is one of the main factors that contribute to economic growth in an increasingly competitive business environment. Through innovation, organizations are able to create new products, services, processes, and business models that provide added value to society and increase economic competitiveness. In the perspective of modern economics, innovation is no longer seen as an activity carried out individually, but rather as the result of the interaction of various actors who exchange knowledge and resources to produce more effective and sustainable solutions (Cavallo et al., 2019).

The development of innovation is also closely related to the organization's ability to develop business models that are adaptive to environmental changes. Kraus et al. (2020) explain that business model innovation is an important instrument in dealing with technological changes, consumer behavior, and evolving market dynamics. Organizations that are able to integrate innovation into their business strategies tend to have better ability to create a competitive advantage and maintain business sustainability in the long term.

In addition, innovation has a close relationship with the ecosystem structure that supports the value creation process. Jacobides et al. (2018) emphasized that innovation often arises from the interaction of various parties who have different resources and competencies. Therefore, the existence of an ecosystem that supports collaboration is an important factor in accelerating the innovation process and increasing its contribution to economic growth. Thus, innovation can be understood as the main mechanism that connects resources, knowledge, and economic opportunities to produce more sustainable economic development.

Digitalization and Economic Transformation

The development of digital technology has brought significant changes to the way economic actors carry out business activities and interact in an economic system. Digitalization allows the exchange of information to take place quickly, efficiently, and without geographical boundaries, creating new opportunities for economic growth. In the context of the modern economy, digital technology not only serves as an operational

support tool, but also as a key driver of economic transformation capable of creating new business models, expanding market access, and increasing organizational productivity (Kraus et al., 2019).

Digitalization also plays an important role in strengthening relationships between actors who are members of an economic ecosystem. Through digital platforms, various parties can collaborate more effectively in the exchange of information, the development of innovation, and the creation of mutual value. Sussan and Acs (2017) explained that the digital entrepreneurial ecosystem is a form of evolution of an entrepreneurial ecosystem that utilizes digital technology to improve connectivity and accelerate the process of creating economic opportunities. Thus, digitalization is a strategic factor that expands the capacity of the economic system to generate innovation and growth.

Furthermore, Bouncken and Kraus (2021) stated that the development of digitalization has encouraged the formation of closer relationships between various economic actors through the use of platforms, digital networks, and modern communication technologies. This condition allows for the creation of wider and more flexible collaboration in supporting economic activities. Therefore, digitalization is an important element in building an economic ecosystem that is adaptive, innovative, and able to face the challenges of the global economy that continues to grow.

3. | RESEARCH METHOD

This research uses a descriptive qualitative approach to gain a comprehensive understanding of the role of economic ecosystems in supporting economic growth through innovation, entrepreneurship, and digitalization. The qualitative approach was chosen because it is able to provide an in-depth explanation of complex social and economic phenomena, especially related to the relationship between economic actors in an ecosystem. This study does not aim to test hypotheses statistically, but rather to identify, describe, and interpret various concepts, relationships, and dynamics that develop in the literature related to economic ecosystems. The descriptive approach is used to describe the characteristics, roles, and contributions of various elements that make up the economic ecosystem in the context of sustainable economic growth.

The data source used in this study is secondary data obtained through literature studies. Data was collected from various scientific articles, reputable international journals, academic books, and scientific documents relevant to the theme of entrepreneurial ecosystem, innovation, digitalization, and economic growth published in the 2018–2022 period. The selection of the period was made to ensure that the studies used reflect the latest developments in the field of economics and entrepreneurship. The literature used was selected based on the relevance of the substance, credibility of the source, and its contribution to the development of the concept of an economic ecosystem.

Data collection techniques are carried out through the process of identification, selection, classification, and systematic literature review. Furthermore, the data was

analyzed using content analysis techniques, namely by examining various findings of previous research to identify key themes, relationship patterns, and research gaps that still require further development. The analysis was carried out by comparing various theoretical and empirical perspectives found in the literature so as to obtain a more comprehensive understanding of the relationship between innovation, entrepreneurship, digitalization, and economic ecosystems. This approach allows researchers to develop a conceptual synthesis that can explain how collaboration between economic actors contributes to economic value creation and sustainable economic growth. The literature study method is also considered suitable to explore the development of the concept of an entrepreneurial ecosystem that is increasingly receiving attention in contemporary economic and management research (Cavallo et al., 2019). In addition, this approach is relevant to understand the interconnectedness of various actors and resources in an interconnected economic system as described in the concept of a modern entrepreneurial ecosystem (Bouncken & Kraus, 2021).

4. | RESULTS

The Role of Economic Ecosystems in Encouraging Innovation and Entrepreneurship

The results show that the development of the modern economy increasingly depends on the ability of various economic actors to build productive collaboration in an interconnected ecosystem. From the perspective of the entrepreneurial ecosystem, economic growth is no longer seen as the result of individual organizational activities, but as the result of interaction between the government, the business world, educational institutions, investors, and the community that support each other in creating economic value (Audretsch et al., 2019). This interaction allows the exchange of resources, information, knowledge, and technology which is the main foundation for the birth of innovation.

Literature review shows that innovation develops more effectively when it is supported by an environment that allows collaboration between stakeholders. Economic ecosystems provide access to a variety of resources that cannot be obtained independently by organizations or business actors. In this context, relationships between actors are an important mechanism that accelerates the process of idea creation, product development, and adoption of new technologies (Jacobides et al., 2018). The existence of a strong network also allows the dissemination of knowledge to take place faster, thus increasing adaptability to changes in the economic environment.

In addition to encouraging innovation, the economic ecosystem also contributes to strengthening entrepreneurial activities. An environment that supports collaboration allows for the emergence of new business opportunities driven by market needs, technological developments, and resource availability. Ferreira et al. (2019) explain that entrepreneurship develops optimally when supported by a network that provides access

to capital, information, and institutional support. Therefore, the existence of a healthy ecosystem is an important factor in creating a productive entrepreneurial climate.

The findings of the study also show that the entrepreneurial ecosystem plays a role in reducing the obstacles that are often faced by new businesses, especially related to limited resources and market legitimacy. Bouncken and Kraus (2021) explained that business actors in an ecosystem benefit in the form of access to collective knowledge, institutional support, and collaborative networks that can increase the chances of business success. This condition strengthens the business position in the face of increasingly dynamic economic competition.

Furthermore, Cavallo et al. (2019) stated that an effective economic ecosystem not only produces higher innovations, but is also able to create sustainable economic growth through increasing the adaptive capacity of economic actors. In an ever-changing environment, the ability to collaborate is a more important source of excellence than individual resource ownership.

These findings also support the view of Kang et al. (2019) who affirm that the success of an economic ecosystem is determined by the quality of the relationships between the actors involved in it. The stronger the relationship formed, the greater the opportunity for innovation and sustainable entrepreneurial activities. Thus, the economic ecosystem can be understood as a strategic instrument that is able to integrate various resources to produce more inclusive and sustainable economic growth.

The results of this study also answer the first and second research gaps that have been identified previously. Many previous studies have discussed innovation and entrepreneurship separately, while the results of this study show that the two aspects are interrelated through the mechanism of the economic ecosystem. In addition, the research focus that was previously more at the level of individual organizations can be expanded through an ecosystem approach that places relationships between actors as a key factor in creating economic value (Fernandes & Ferreira, 2020; Scott et al., 2022).

Digitalization as a Strengthening of the Economic Ecosystem and Sustainable Growth

The results of the next study show that digitalization is an increasingly important factor in strengthening the function of the economic ecosystem. The development of digital technology has changed the way economic actors interact, collaborate, and create economic value. Information technology allows information exchange to take place in real-time, expand market access, and improve the efficiency of various economic activities. In this context, digitalization acts as a link that strengthens relationships between actors in the economic ecosystem (Kraus et al., 2019).

Digital transformation also encourages the emergence of new business models that are more flexible and adaptive to environmental changes. Kraus et al. (2020) explain that digital-based business model innovation allows organizations to create value through different mechanisms than conventional business approaches. This condition

expands collaboration opportunities between organizations, consumers, investors, and various other parties connected through digital platforms.

Sussan and Acs (2017) introduced the concept of digital entrepreneurial ecosystem which explains how digital technology forms a new environment for entrepreneurial activities. In the digital ecosystem, geographical boundaries are becoming increasingly irrelevant as economic interactions can take place through digital networks that connect various parties from different locations. These findings show that digitalization not only improves economic efficiency, but also expands the capacity of economic systems to generate innovation.

A study by Song et al. (2020) shows that digital transformation is able to transform traditional economic systems into a more innovative and dynamic environment. The use of information technology opens access to a wider market, increases information transparency, and accelerates the process of creating economic value. Thus, digitalization is a catalyst that strengthens the relationship between innovation, entrepreneurship, and economic growth.

In addition, Bouncken and Kraus (2021) emphasized that the development of digital technology has accelerated the process of connectivity between economic actors through various digital platforms and networks. This connectivity allows economic actors to gain access to wider resources and creates collaboration opportunities that were previously difficult to realize. Digitalization also improves the organization's ability to respond to environmental changes quickly and effectively.

The findings of this study show that the success of digital transformation is greatly influenced by the quality of the ecosystem that supports it. Endres et al. (2020) explained that the adoption of digital technology will be more effective if it is supported by an environment that provides access to adequate knowledge, infrastructure, and institutional support. Therefore, digitalization and the economic ecosystem are two elements that complement each other in encouraging economic growth.

Furthermore, research by Scott et al. (2022) shows that collaborative networks are an important factor in maintaining the sustainability of the economic ecosystem in the digital era. Strong relationships between actors allow for the creation of a shared learning process, information exchange, and continuous development of innovations. This strengthens the ability of the economic system to face various challenges that arise due to technological changes and market dynamics.

Other findings suggest that the ecosystem approach is able to explain the relationship between digitalization and economic growth more comprehensively than the individual organizational approach. Digitalization not only affects organizational performance, but also changes the structure of relationships formed in the economic system as a whole (Audretsch et al., 2019). Therefore, an understanding of economic growth needs to consider the interaction between technology, innovation, entrepreneurship, and collaborative networks that make up the modern economic ecosystem.

Overall, the results of this study answer the third, fourth, and fifth research gaps that have been identified previously. Digitalization has proven to play a key role as a link that strengthens interactions between economic actors, while collaboration formed in the economic ecosystem is an important mechanism in generating innovation and sustainable economic growth. Thus, a digital-based economic ecosystem can be seen as a strategic foundation in supporting adaptive, inclusive, and sustainable economic development in the modern economic era (Jacobides et al., 2018; Cavallo et al., 2019).

5. | DISCUSSION

The results show that economic growth in the modern era is no longer only determined by the ability of individual organizations to manage resources, but is increasingly influenced by the quality of relationships and collaborations formed among various economic actors. These findings reinforce the view of an entrepreneurial ecosystem that places interaction between actors as a key element in creating economic value and driving sustainable growth. In this context, the government, the business sector, educational institutions, investors, and society do not operate separately, but complement each other in forming an environment that supports innovation and entrepreneurial activities (Jacobides et al., 2018).

The findings of this study also show that innovation is the result of a collaborative process that develops through the exchange of knowledge, resources, and experiences within the economic ecosystem. This condition supports the argument of Cavallo et al. (2019) who stated that innovation will develop more effectively when supported by an environment that is able to facilitate the interaction of various actors with different backgrounds and competencies. Thus, the success of innovation is determined not only by the internal capacity of the organization, but also by the ability of the ecosystem to provide access to the resources necessary to create new value.

In addition to innovation, this study found that entrepreneurial activities benefit significantly from the existence of a strong economic ecosystem. Institutional support, access to business networks, and availability of information and resources are factors that increase the chances of business success. These findings are in line with Audretsch et al. (2019) who explained that the entrepreneurial ecosystem functions as a mechanism that accelerates business growth and increases the contribution of entrepreneurship to economic development. Therefore, entrepreneurial development needs to be understood as part of a broader economic system rather than just the individual activities of business actors.

The results of the study also affirm the importance of digitalization as a factor that strengthens the effectiveness of the economic ecosystem. Digital technology allows various economic actors to interact more quickly, efficiently, and flexibly without being limited by geographical factors. This condition supports the concept of digital entrepreneurial ecosystem proposed by Sussan and Acs (2017), which is an entrepreneurial environment that utilizes digital technology to expand collaboration opportunities and economic value creation. The presence of digital technology not only

increases the efficiency of business processes, but also accelerates the spread of innovation in the economic system.

The findings of this study also provide answers to several research gaps that have been identified previously. Previous studies tended to discuss innovation, entrepreneurship, and digitalization separately, while the results of this study show that these three elements are interconnected through economic ecosystem mechanisms. Bouncken and Kraus (2021) emphasized that inter-actor connectivity is the main foundation in creating an environment that is able to generate innovation and economic growth in a sustainable manner. In addition, this study shows that digitalization plays a role as a link that strengthens the quality of these relationships.

Overall, the results support the view of Fernandes and Ferreira (2020) and Scott et al. (2022) that the future of economic development will increasingly depend on the ability of various actors to build collaborative networks that are adaptive to environmental change. Therefore, the economic ecosystem approach can be seen as a relevant conceptual framework to understand the dynamics of economic growth in the digital era as well as as a basis for formulating a more inclusive, innovative, and sustainable economic development strategy.

6. | CONCLUSION

This research shows that economic growth in the modern era is no longer only determined by the ability of individual organizations or business actors to manage resources, but also by the quality of interaction and collaboration formed in an economic ecosystem. The economic ecosystem acts as an environment that brings together various actors, including the government, the business world, educational institutions, investors, and the community, in creating mutually supportive relationships to generate innovation, strengthen entrepreneurial activities, and encourage sustainable economic growth.

The results of the study show that innovation is an important factor in increasing economic competitiveness and productivity. However, innovation will develop more optimally if supported by an ecosystem that is able to provide access to resources, knowledge, technology, and collaborative networks. In addition, entrepreneurial activities also benefit significantly from the existence of a strong ecosystem because it is able to increase access to business opportunities, funding, and institutional support needed for business development.

This study also found that digitalization functions as a reinforcing factor that accelerates interaction between economic actors, expands market access, and increases the effectiveness of collaboration processes and economic value creation. Therefore, the integration between the economic ecosystem, innovation, entrepreneurship, and digitalization can be seen as a strategic foundation in creating an adaptive, inclusive, and sustainable economic system. These findings are expected to be the basis for the development of further research and policy formulation that supports economic development based on collaboration and innovation.

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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.

REFERENCES

Audretsch, D. B., Cunningham, J. A., Kuratko, D. F., Lehmann, E. E., & Menter, M. (2019). Entrepreneurial ecosystems: economic, technological, and societal impacts. *The Journal of technology transfer*, *44*(2), 313-325.

Bouncken, R. B., & Kraus, S. (2021). Entrepreneurial ecosystems in an interconnected world: emergence, governance and digitalization. *Review of Managerial Science*, *16*(1), 1-14.

Cavallo, A., Ghezzi, A., & Balocco, R. (2019). Entrepreneurial ecosystem research: Present debates and future directions. *International entrepreneurship and management journal*, *15*(4), 1291-1321.

Endres, H., Huesig, S., & Pesch, R. (2021). Digital innovation management for entrepreneurial ecosystems: services and functionalities as drivers of innovation management software adoption. *Review of Managerial Science*, *16*(1), 135-156.

Fernandes, A. J., & Ferreira, J. J. (2022). Entrepreneurial ecosystems and networks: a literature review and research agenda. *Review of Managerial Science*, *16*(1), 189-247.

Ferreira, J. J., Fernandes, C. I., & Kraus, S. (2019). Entrepreneurship research: mapping intellectual structures and research trends. *Review of Managerial Science*, *13*(1), 181-205.

Jacobides, M. G., Cennamo, C., & Gawer, A. (2018). Towards a theory of ecosystems. *Strategic management journal*, *39*(8), 2255-2276.

Kang, Q., Li, H., Cheng, Y., & Kraus, S. (2021). Entrepreneurial ecosystems: analysing the status quo. *Knowledge Management Research & Practice*, *19*(1), 8-20.

Kraus, S., Filser, M., Puumalainen, K., Kailer, N., & Thurner, S. (2020). Business model innovation: A systematic literature review. *International Journal of Innovation and Technology Management*, *17*(06), 2050043.

Kraus, S., Palmer, C., Kailer, N., Kallinger, F. L., & Spitzer, J. (2019). Digital entrepreneurship: A research agenda on new business models for the twenty-first century. *International Journal of Entrepreneurial Behavior & Research*, *25*(2), 353-375.

Scott, S., Hughes, M., & Ribeiro-Soriano, D. (2022). Towards a network-based view of effective entrepreneurial ecosystems. *Review of Managerial Science*, *16*(1), 157-187.

Song, Y., Escobar, O., Arzubiaga, U., & De Massis, A. (2022). The digital transformation of a traditional market into an entrepreneurial ecosystem: Y. Song et al. *Review of Managerial Science*, *16*(1), 65-88.

Sussan, F., & Acs, Z. J. (2017). The digital entrepreneurial ecosystem. *Small business economics*, *49*(1), 55-73.