

Digital Literacy, Economic Literacy, and Innovation as Determinants of Economic Performance in the Era of Digital Transformation

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ABSTRACT

Digital transformation has significantly reshaped economic activities and increased the need for greater adaptive capabilities in responding to a rapidly changing environment. This study aims to analyze the relationship between digital literacy, economic literacy, and innovation in supporting economic performance during the era of digital transformation. The research employs a qualitative approach using a library research method through the review of scholarly articles, books, and academic sources published in the last five years. Data were analyzed using content analysis techniques to identify, compare, and synthesize findings from previous studies. The results indicate that digital literacy enhances the ability to utilize technology and access economic information, while economic literacy supports more rational and efficient decision-making processes. Furthermore, innovation serves as a strategic factor that strengthens competitiveness and generates economic value. The findings also reveal that digital literacy, economic literacy, and innovation complement one another in improving economic performance. This study contributes theoretically by providing a more comprehensive understanding of the factors influencing economic performance within the context of digital transformation and offers a foundation for future empirical research in related fields.

Keywords: *Digital Literacy, Digital Transformation, Economic Literacy, Economic Performance, Innovation.*

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1. | INTRODUCTION

The development of digital technology has driven fundamental changes in various economic activities, both at the individual, organizational, and business sector levels as a whole. Digital transformation not only changes the way economic actors interact with the market, but also affects decision-making processes, business strategies, and economic value creation patterns. In an increasingly competitive economic environment, the ability to utilize digital technology is one of the important factors that determine the success and sustainability of a business. Digitalization allows businesses to gain wider access to information, improve operational efficiency, and expand market reach through various available digital platforms. Therefore, adaptation to technological developments is an unavoidable necessity in an effort to increase economic competitiveness in the modern era (Arumsari et al., 2022).

One of the aspects that is of concern in the digital economy transformation process is digital literacy. Digital literacy not only reflects an individual's ability to use technological devices, but also includes the ability to effectively acquire, manage, evaluate, and utilize information to support economic activities. A high level of digital literacy allows economic actors to take advantage of various opportunities that arise through the development of information and communication technology. Previous research has shown that digital literacy plays an important role in improving marketing skills, business management, and the development of business models that are more adaptive to changes in the external environment (Fharaz et al., 2022; Huda et al., 2023).

In addition to digital literacy, economic literacy is also an equally important factor in supporting the success of economic activities. Economic literacy refers to the ability of individuals to understand economic concepts, manage resources rationally, and make effective decisions based on considerations of benefits and costs. This ability is indispensable in the face of increasingly complex and uncertain market dynamics. Individuals who have a good level of economic literacy tend to be better able to identify economic opportunities, manage risks, and allocate resources efficiently to achieve expected economic goals. Therefore, economic literacy can be seen as intellectual capital that supports successful decision-making in various economic activities (Firmansyah & Dede, 2022; Reynara & Pangestuty, 2023).

On the other hand, innovation is becoming an increasingly important strategic element in creating a sustainable competitive advantage. Innovation allows economic actors to produce products, services, and business processes that are more effective than competitors. In an economic environment characterized by rapid technological change, innovation is becoming the main instrument to maintain relevance and increase added value. Various studies show that organizations or business actors that are able to develop innovation in a sustainable manner tend to have a higher level of adaptability and greater opportunities to achieve long-term economic growth (Thi et al., 2023).

Although various studies have discussed digital literacy, economic literacy, and innovation separately, there are still limitations in research integrating these three

variables in one comprehensive conceptual framework. Most previous studies have focused on the direct influence of digital literacy on business performance or the relationship of innovation to business success without considering the role of economic literacy as an important supporting factor. In addition, previous research is generally still oriented to a specific business context so that the results cannot be generalized more broadly to contemporary economic phenomena (Irawan, 2023).

Based on these conditions, this study aims to analyze the relationship between digital literacy, economic literacy, and innovation in supporting the improvement of economic performance in the era of digital transformation. This research is expected to make a theoretical contribution through the development of a conceptual model that integrates the three variables while providing a more comprehensive understanding of the factors that affect economic success in the midst of increasingly dynamic business environment changes.

2. | LITERATURE REVIEW

Digital Literacy and Economic Literacy in Economic Transformation

The economic transformation that has occurred in the digital era has driven significant changes in the way individuals and organizations carry out economic activities. One of the factors that determines success in dealing with these changes is the level of digital literacy. Digital literacy is not only related to the ability to use technological devices, but also includes the ability to effectively acquire, manage, evaluate, and utilize information to support economic decision-making. In the context of the modern economy, digital literacy allows economic actors to access market information faster, expand business networks, and increase efficiency in various economic activities. Therefore, digital literacy is an increasingly important competency in supporting productivity and competitiveness in the midst of technological developments that are taking place very quickly (Fharaz et al., 2022).

In addition to digital literacy, economic literacy also has a strategic role in supporting the success of economic activities. Economic literacy refers to the ability of individuals to understand basic economic concepts, manage resources rationally, and make decisions that consider benefits and costs optimally. A good level of economic literacy allows individuals to understand market dynamics, identify business opportunities, and manage risks that arise in an uncertain economic environment. This ability becomes increasingly important when economic actors have to deal with changes in consumer behavior, market competition, and evolving technological developments (Firmansyah & Dede, 2022).

The relationship between digital literacy and economic literacy shows that the two aspects complement each other in increasing the capacity of individuals to adapt to economic changes. Digital literacy provides access to information and technology, while economic literacy helps individuals use the information rationally in effective

economic decision-making. Thus, the combination of these two capabilities can be an important foundation in improving the quality of economic performance in the era of digital transformation (Reynara & Pangestuty, 2023).

Innovation as a Driver of Economic Performance

Innovation is one of the factors most often associated with increasing competitiveness and economic growth. From a modern economic perspective, innovation is not only understood as the creation of new products, but also includes the development of processes, marketing methods, business models, and organizational systems that are able to create added value for consumers and business actors. The ability to innovate is especially important as the current economic environment is characterized by rapid technological changes, increasing global competition, and increasingly dynamic changes in consumer preferences. Therefore, innovation is seen as the main instrument that allows organizations to maintain sustainability and improve their performance in the long term (Thi et al., 2023).

Various studies show that innovation has a positive relationship with increased productivity, operational efficiency, and an organization's ability to respond to changes in the business environment. Organizations that are able to generate innovation in a sustainable manner tend to be more adaptive to market changes than organizations that rely only on conventional methods. In addition, innovation also plays a role in creating differentiation that can increase competitive advantage and strengthen the organization's position in increasingly complex economic competition (Herdiana et al., 2022).

In the context of digital transformation, innovation is inseparable from the ability to make effective use of technology and information. A high level of digital literacy can encourage the emergence of innovative ideas, while economic literacy helps the process of evaluating the feasibility and economic benefits of the innovations produced. Thus, innovation can be seen as the result of the ability of individuals and organizations to combine knowledge, technology, and economic understanding to produce value-added solutions. Therefore, innovation is an important factor that bridges the relationship between digital literacy, economic literacy, and improving economic performance in the era of digital transformation (Chetty et al., 2018).

3. | RESEARCH METHOD

This research uses a qualitative approach with the library research method. The literature study method was chosen because the research aims to review, analyze, and synthesize various concepts and empirical findings related to digital literacy, economic literacy, innovation, and economic performance in the context of digital transformation. This approach allows researchers to gain a comprehensive understanding of the relationships between variables through the collection and study of various relevant scientific sources without conducting direct field data collection. Literature studies are

also considered appropriate to identify theoretical developments, find research gaps, and build a conceptual framework that can be used as a basis for further research development.

The data sources used in this study are secondary data obtained from scientific journal articles, proceedings, academic books, research reports, and other scientific documents related to the research theme. The literature search process is carried out through various scientific databases indexed by Google Scholar with a focus on publications published in the last five years. The selection of the period was carried out to ensure that the literature used is able to describe the latest developments related to digital transformation, economic literacy, and innovation in modern economic activities. In addition, this study also uses 8 articles as the main reference because it conceptually discusses the relationship between digital literacy, economic literacy, and innovation in supporting business strategies and success.

The research stage begins with the identification of the topic and the formulation of the focus of the study, followed by the collection of relevant literature based on the predetermined keywords. The collected literature was then selected based on the suitability of the theme, year of publication, and relevance to the research objectives. Furthermore, the data obtained was analyzed using content analysis techniques, namely by identifying the main concepts, comparing the results of previous research, and grouping findings based on themes related to digital literacy, economic literacy, innovation, and economic performance. The results of the analysis are then synthesized to obtain a more comprehensive picture of the relationships between variables as well as identify opportunities for future research development. Through this approach, this research is expected to be able to produce a deeper theoretical understanding of the role of digital literacy, economic literacy, and innovation in supporting the improvement of economic performance in the digital transformation era.

4. | RESULTS

RESULTS

The results of the literature review show that the development of digital transformation has significantly changed the pattern of economic activity. Digitalization not only affects production and distribution processes, but also changes the way individuals and organizations obtain information, make decisions, and create economic added value. In this context, digital literacy, economic literacy, and innovation emerged as three factors that are consistently identified in various studies as important determinants that affect economic performance and the sustainability of business activities. However, most previous studies have still examined the three variables separately so that they have not provided a complete picture of the relationship between these factors in one integrated conceptual framework (Irawan, 2023).

Based on the results of various studies, digital literacy has been proven to have a great contribution to improving the ability of individuals to utilize information technology to support economic activities. The ability to use digital devices, access

market information, and utilize digital platforms allows economic actors to improve operational efficiency and expand available economic opportunities. Research by Fharaz et al. (2022) shows that a good level of digital literacy contributes to increasing e-marketing capabilities and the use of technology in economic activities. These findings are strengthened by Arumsari et al. (2022) who explain that the use of digital technology is able to increase marketing effectiveness and expand access to a wider market. Meanwhile, Huda et al. (2023) found that digital literacy has a positive effect on improving economic performance because it allows business actors to optimize the use of technology to support more efficient business processes.

In addition to digital literacy, economic literacy is also an important factor that affects the quality of economic decision-making. Economic literacy provides individuals with the ability to understand economic concepts, manage resources effectively, and consider the various risks and opportunities that arise in economic activities. Firmansyah and Dede (2022) explain that economic literacy has a significant relationship with improving entrepreneurial performance because it helps individuals make more rational decisions. These findings are in line with research by Reynara and Pangestuty (2023) which shows that individuals with better levels of economic literacy tend to have a higher ability to maintain the sustainability of their economic activities. Economic literacy also plays a role in helping individuals understand changes in the economic environment so that they are able to respond to various challenges more adaptively.

From the perspective of innovation, the results of the study show that innovation functions as a mechanism that connects individual abilities with improving economic performance. Innovation allows individuals and organizations to develop new products, services, processes, and strategies that are able to provide added value for consumers and economic actors. Thi et al. (2023) explained that innovation has a significant contribution to business sustainability because it is able to create a competitive advantage that is difficult for competitors to replicate. In addition, Herdiana et al. (2022) show that the development of information and technology-based innovations can improve the ability of organizations to create products that are more in line with market needs. The findings show that innovation not only serves as the end result of the learning process, but also as a strategic instrument to increase economic competitiveness.

The results of the literature synthesis also show that there is a close relationship between digital literacy, economic literacy, and innovation. Individuals who have a high level of digital literacy tend to have an easier time obtaining relevant information to develop new ideas. However, the ability to obtain information alone is not enough to produce innovations with economic value. In this case, economic literacy plays a role as an ability that helps individuals assess the feasibility, benefits, and risks of the various innovation alternatives available. Therefore, digital literacy and economic literacy can be seen as supporting factors that jointly encourage the formation of

effective innovations oriented towards improving economic performance (Neumeye et al., 2020).

To clarify the results of the synthesis of the various studies analyzed, Table 1 presents a summary of the relationships between variables found in the literature.

Table 1. Synthesis of Findings of Previous Research

Variable	Key Findings	References
Digital Literacy	Improving the ability to utilize technology and access to economic information	Fharaz et al. (2022)
Digital Literacy	Support marketing effectiveness and market expansion	Arumsari et al. (2022)
Digital Literacy	Affects the improvement of economic performance	Huda et al. (2023)
Economic Literacy	Improve the quality of decision-making	Firmansyah & Dede (2022)
Economic Literacy	Supporting the sustainability of economic activities	Reynara & Pangestuty (2023)
Innovation	Creating a competitive advantage	Thi et al. (2023)
Innovation	Improving market adaptability	Herdiana et al. (2022)
Variable Integration	Literacy and innovation together improve economic performance	Irawan (2023)

Analysis of various studies also shows that most studies still focus on the direct influence of digital literacy on business performance or the influence of innovation on economic success. Khoiriyah et al. (2022) found that digital literacy contributes to an increase in interest in digital-based entrepreneurship, which shows that digital skills have broader implications than just the use of technology. On the other hand, Mahardika et al. (2023) show that product innovation has a significant role in improving economic performance when supported by an adequate understanding of economics. The findings show that the relationship between variables is actually multidimensional and cannot be explained by a single factor.

Other research shows that economic success in the digital age requires a combination of technical and conceptual skills. Taufiq and Pabulo (2023) found that the use of digital payment technology will provide greater economic benefits if supported by a good understanding of economics. Meanwhile, Yulianto and Rita (2023) explained that the ability to manage financial resources is a factor that strengthens the relationship between economic literacy and economic performance. The findings suggest that improving economic performance requires an integration between the ability to utilize technology and the ability to understand the economic consequences of every decision taken.

Furthermore, the results of the study show that innovation functions as a connecting factor that strengthens the influence of digital literacy and economic literacy on economic performance. Individuals who have access to digital information and the ability to understand economic aspects tend to be more likely to develop new ideas that

have economic value. This condition explains why innovation is often found as a factor that contributes to economic growth and business success in various studies. In other words, innovation is not only influenced by creativity alone, but also by the ability to access information and the ability to evaluate available economic opportunities.

Another interesting finding is that there is still limited research that integrates these three variables simultaneously. Most previous research has placed digital literacy, economic literacy, and innovation as stand-alone variables. In fact, the results of the literature synthesis show that the three have complementary relationships in improving economic performance. Therefore, the research gap found in this study shows the need to develop a more comprehensive conceptual model to explain the relationship between digital literacy, economic literacy, innovation, and economic performance in one integrated framework. The model is expected to provide a deeper understanding of the factors that influence economic success in the digital transformation era and become the basis for future empirical research.

5. | DISCUSSION

The results of the study show that digital literacy, economic literacy, and innovation are three interrelated components in supporting the improvement of economic performance in the digital transformation era. These findings reinforce the view that economic success is no longer determined only by the ownership of physical resources or financial capital, but also by the ability of individuals and organizations to manage information, understand economic dynamics, and create innovations that are relevant to market needs. In this context, digital literacy serves as a foundation that allows individuals to gain access to various information and technologies that can be leveraged to increase the effectiveness of economic activities. The higher the digital capabilities possessed, the greater the opportunity to utilize technology as a means of creating economic added value (Fharaz et al., 2022).

However, the ability to utilize technology alone is not enough to produce optimal economic performance. The results show that economic literacy has an important role in ensuring that the available information and technology can be used rationally and productively. Economic literacy helps individuals understand the various consequences of decisions taken, including in terms of resource management, opportunity identification, and economic risk mitigation. These findings support the research of Firmansyah and Dede (2022) who affirm that economic understanding is a factor that contributes to improving the quality of decisions and the success of economic activities in the long term.

Furthermore, this study found that innovation is a factor that bridges the relationship between literacy and economic performance. Individuals who have a good level of digital literacy and economic literacy tend to be better able to develop new ideas that have economic value. The resulting innovations are not only in the form of new products or services, but also include the development of more effective processes, strategies, and business models in the face of changes in the economic environment.

This finding is in line with Thi et al. (2023) research which states that innovation plays a role as a source of competitive advantage that is able to increase sustainability and economic growth.

In addition to confirming the relationship between variables, this study also contributes to the development of the literature by showing that digital literacy, economic literacy, and innovation should not be seen as stand-alone factors. Rather, the three form a system of abilities that complement each other. Digital literacy provides access to information and technology, economic literacy helps the evaluation and decision-making process, while innovation is a strategic output that results in an increase in economic performance. This perspective expands on the findings of Irawan (2023) who previously highlighted the relationship between these three variables in the context of marketing strategy and business success.

Thus, the results of this study emphasize that improving economic performance in the era of digital transformation requires an integrated approach. Efforts to strengthen digital literacy need to be accompanied by increasing economic literacy and developing innovation capacity so that the benefits of digital transformation can be maximized in a sustainable manner. These findings also support the view of Karman and Savanevičienė (2021) who stated that the combination of digital capabilities, economic understanding, and innovation is a strategic factor in building economic competitiveness in the midst of increasingly dynamic environmental changes.

6. | CONCLUSION

Digital transformation has created significant changes in economic activity, so the ability to adapt to technological developments and market dynamics is an important factor in achieving optimal economic performance. Based on the results of the literature studies that have been conducted, it can be concluded that digital literacy, economic literacy, and innovation are the three main factors that are interrelated in supporting the improvement of economic performance in the digital era. Digital literacy provides the ability for individuals and organizations to utilize technology and information effectively, while economic literacy plays a role in improving the quality of decision-making through a better understanding of economic principles and resource management.

In addition, innovation has proven to be a strategic factor that allows the creation of added value, increased competitiveness, and adaptability to changes in the economic environment. The relationship between the three variables shows that improving economic performance cannot be achieved only through mastery of technology or economic understanding separately, but requires simultaneous integration of digital capabilities, economic understanding, and innovation capacity. The findings of the study also show that there are still limitations in research integrating these three variables in one comprehensive conceptual model.

Therefore, this study contributes in the form of a theoretical synthesis that explains the relationship between digital literacy, economic literacy, and innovation in

supporting economic performance. The results of the research are expected to be the basis for further empirical research and a reference in formulating a more adaptive, innovative, and sustainable economic capacity development strategy in the era of digital transformation.

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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.

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