

**Digital Literacy as the Main Pillar for Enhancing Human Resource Competence
Towards Indonesia Emas 2045**

Loecita Sandiar ¹, Husain Nurisman ², Sigit Widiyarto ³, Hugo Aries Suprpto ^{4,*},
Hanggono Arie Prabowo ⁵

^{1,3,4,5} Universitas Indraprasta PGRI Jakarta

²STIE Jakarta

Email: bapak.aries@gmail.com

ARTICLE INFO	ABSTRACT
<p>Published: May,30th, 2025</p> <p>Keywords: : Digital literacy, human Resource Competence, Indonesia emas</p>	<p><i>In the era of Industry 4.0 revolution and globalization, mastering digital literacy becomes a key factor in improving Indonesia's human resources (HR) quality to achieve the vision of Indonesia Emas 2045. The development of digital literacy in higher education can produce competent, innovative entrepreneurs capable of competing globally. The aim of this research is to describe the role of digital literacy and HR in facing Indonesia Emas 2045. This research employs a qualitative approach with a literature review, systematically collecting and analyzing relevant literature sources related to digital literacy, HR development, and the Indonesia 2045 vision in a thorough and in-depth manner. The findings indicate that digital literacy plays a vital role in strengthening technical competencies, entrepreneurship, and the digital economy of the nation, while also increasing Indonesia's competitiveness at the international level. In conclusion, digital literacy is the main foundation for building resilient and innovative HR to face future challenges. The recommendations highlight the importance of synergy among the government, higher education institutions, and the private sector in strengthening digital literacy curricula and continuously developing digital competencies. The implication of this research emphasizes the need for policies that support the improvement of digital literacy as a strategic effort to realize Indonesia Emas 2045 that is highly competitive and inclusive.</i></p>

INTRODUCTION

In the era of Industry 4.0 revolution and globalization, the development of information and communication technology has become a primary driver of change across various fields, including the economic and entrepreneurial sectors. Digital literacy has emerged as a crucial competence that must be possessed by the younger generation, especially students, to be able

to compete and adapt quickly to increasingly complex, technology-based market dynamics. Based on Hanifa's research (2023), there is a significant influence between digital literacy and family environment on students' interest in entrepreneurship, with an impact level of 92% from 24 respondents. This finding emphasizes that digital literacy skills and family support play a major role in fostering students' interest and motivation to venture into entrepreneurship. As young aspiring entrepreneurs, students need to develop both entrepreneurial literacy and digital literacy skills to face the challenges of a modern, technology-oriented market.

The availability and optimization of curriculum in higher education institutions are also crucial factors in enhancing students' competencies in entrepreneurship and digital literacy. Anggresta et al. (2022) exemplify that optimizing entrepreneurship and digital literacy courses in higher education can significantly contribute to producing graduates who are competent, able to compete nationally and internationally, and who actively support national economic growth while reducing unemployment. This demonstrates the importance of integrating entrepreneurship education and digital literacy within formal educational systems to create resilient and innovative future entrepreneurs. Effective education in this area can foster strong entrepreneurial behavior and increase Indonesia's human resources' competitiveness in the digital era.

Beyond the educational perspective, entrepreneurial behavior itself is a key determinant of success in business. Prabawati (2019) states that entrepreneurial behavior is heavily influenced by internal factors such as self-efficacy, as well as external factors like entrepreneurial education, financial literacy, and digital literacy. Business success depends not only on product or service innovation but also on the entrepreneur's ability to manage financial and marketing aspects digitally. High self-efficacy enhances confidence in decision-making, and financial and digital literacy form essential foundations for effective and efficient business operation.

Furthermore, Hasanah and Setiaji (2019) reveal that digital literacy, self-efficacy, and environmental factors have both partial and simultaneous effects on entrepreneurial intentions within the e-business context among students. This indicates that these factors not only influence interest but also the readiness and capability of students to venture into digital-based entrepreneurship. Supportive environments, including family, campus, and society, strengthen motivation and empower students to start and develop their businesses through digital platforms, which are experiencing rapid growth.

In this context, digital literacy plays a highly strategic and multifaceted role. Agit et al. (2023) highlight that digital literacy not only enhances the quality of human resources but also strengthens aspects of business such as digital marketing, global competitiveness, adaptation to new technologies, and business transformation. Advances in digital technology enable entrepreneurs, including students and young entrepreneurs, to reach broader markets without geographical limitations. Technology also helps reduce promotion and operational costs, increasing efficiency and profitability. However, alongside these opportunities, challenges such as increasing online competition, economic system changes, and the need to constantly adapt to rapid technological advances must be addressed.

Therefore, Indonesia's preparedness in human resources (HR) to face the digital era is crucial in realizing Indonesia Emas 2045. Indonesia needs a generation of youth equipped not only with technical competence but also with robust digital literacy skills and innovative, adaptable entrepreneurial capabilities. Strengthening HR through training, education, and digital competency development should be a national priority to enable Indonesia to compete

globally. This aligns with the vision of Indonesia Emas 2045, aiming to realize Indonesia as a developed country rooted in innovation and high competitiveness.

The awareness of the importance of digital literacy and entrepreneurship must start early and be built through synergy among various stakeholders, including universities, the government, and the business world. Higher education institutions play a vital role in integrating these aspects and disciplines within the framework toward Indonesia 2045. Based on the above discussion, the purpose of this research is to describe the role of Digital Literacy as the Main Pillar for Improving Human Resources' Competence Toward Indonesia Emas 2045.

METHOD

The research method used in this study is a qualitative approach with a focus on literature review. This research aims to examine the role of digital literacy as the main means to enhance human resources (HR) in order to achieve Indonesia's success towards Indonesia Emas 2045. The literature review approach was chosen because the researcher will collect, review, and integrate various relevant sources, such as scientific articles, books, research reports, and official documents related to digital literacy, HR development, and the vision of Indonesia 2045. Through this methodology, the researcher aims to obtain a comprehensive and in-depth understanding of the relationship between digital literacy and capacity building of HR within the context of national development.

The data collection process is conducted systematically through searching relevant sources of literature, including academic journals, books, institutional reports, and government policy documents. The researcher uses keywords such as "digital literacy," "HR development," "Indonesia Emas 2045," and related terms to support the data search process. Subsequently, the collected data are critically selected based on relevance, quality, and source reliability, then read and analyzed to identify main themes, key concepts, and relationships that support the research framework. The researcher also records and codes quotations or important points from each source to facilitate further analysis.

In the data analysis process, the researcher adopts content analysis techniques aimed at interpreting the meaning from various literature sources systematically and in-depth. Through this analysis, patterns, relationships, and major categories that emerge from the literature regarding the benefits of digital literacy in improving the quality of national HR will be identified. Furthermore, the researcher will develop a synthesis based on the findings from the analyzed literature to support the argument about how crucial digital literacy is as a strategic instrument in building superior and competitive HR capable of facing future challenges for Indonesia.

This literature review will be based on a thorough analysis of the selected literature, focusing on indicators of the role of digital literacy in enhancing HR competencies and its contribution to achieving Indonesia Emas 2045. This research is expected to produce a comprehensive and empirically grounded understanding of the importance of digital literacy as a fundamental foundation in developing resilient, innovative, and highly competitive Indonesian human resources as the nation looks toward a more advanced future.

RESULT AND DISCUSSION

Digital literacy currently plays a crucial role in human resource (HR) development that is capable of competing globally, especially in the context of preparing for Indonesia Emas 2045. The availability and mastery of digital literacy are not only necessities but also key pillars in improving HR competencies to be adaptive, innovative, and competent in the digital era. As a fundamental foundation, digital literacy enables individuals, including students and entrepreneurs, to understand, manage, and utilize information technology in various aspects of life, encompassing education, entrepreneurship, and national economic development in general.

One important aspect of digital literacy is its influence on entrepreneurial development. Anggresta et al. (2022) emphasize that optimizing entrepreneurship and digital literacy courses in higher education can produce capable entrepreneurs who can compete at national and international levels. Implementing curricula that focus on digital literacy will strengthen the entrepreneurial character of students through the ability to leverage digital technology in marketing, product innovation, business management, and other areas. This is vital within the context of national economic growth, where digital-based entrepreneurship increasingly plays a crucial role in overcoming unemployment and increasing national income.

Prabawati (2019) highlights that entrepreneurial behavior is heavily influenced by internal factors such as self-efficacy, as well as external factors like entrepreneurial education, financial literacy, and digital literacy. High self-efficacy, nurtured through training and practical experience, will boost entrepreneurs' confidence in managing their businesses. Digital literacy has a significant impact on accelerating the learning process and implementing business innovations, as well as opening wider market penetration through digital platforms. In other words, digital literacy functions as a tool for empowering individuals to become independent entrepreneurs with greater confidence, ultimately increasing business success rates and strengthening the national economy sustainably.

Hasanah and Setiaji (2019) state that digital literacy, self-efficacy, and environment have both partial and simultaneous effects on entrepreneurial intentions within the context of e-business among students. They assert that digital literacy directly influences students' readiness and desire to utilize digital media in developing their businesses. A supportive environment, including family, campus, and society at large, will enrich experiences and strengthen students' confidence as future digital entrepreneurs. Therefore, building a strong digital literacy ecosystem among students and the younger generation becomes an urgent necessity to reinforce their role in a digital-based economy.

Agit et al. (2023) show that digital literacy also plays a significant role in various aspects of online business growth and business transformation in Indonesia. Advances in digital information technology, driven by digital literacy, enable entrepreneurs, including students and young entrepreneurs, to reach wider markets, cut promotional and operational costs, and enhance the competitiveness of their companies. Furthermore, digital literacy contributes to improving the quality of human resources through developing relevant digital skills such as digital marketing, social media management, data analysis, and e-commerce platform usage. However, challenges from the use of this technology include increasing intense competition, global economic system changes, and the need to continuously adapt to

technological innovations. Only HR that masters digital literacy entirely can maximize these opportunities.

Apart from industry and entrepreneurship aspects, digital literacy also becomes a key to fulfilling Indonesia Emas 2045's vision from a broader national development perspective. Wihardjo et al. emphasize that achieving this vision requires active collaboration among the government, the private sector, and the community to ensure that development proceeds effectively, inclusively, and sustainably. Digital literacy is part of this strategy because it can accelerate the digitization of public services, increase national competitiveness, and expand access to information and economic opportunities across all layers of society. On the other hand, awareness of the importance of developing healthy, integrity-driven HR capable of competing globally must be accompanied by attention to other human development aspects such as human rights, gender equality, and social justice, as expressed by Farlim et al. (2024).

CONCLUSION

Based on the literature review that has been presented, it can be concluded that digital literacy plays a central role in improving the quality of human resources (HR) to support Indonesia's journey toward Indonesia Emas 2045. The availability and mastery of digital literacy serve as the fundamental foundation for individuals, especially students and entrepreneurs, to be able to compete and adapt in an ever-evolving digital era. The development of digital literacy not only enhances technical skills but also strengthens entrepreneurial competencies through the utilization of digital technology in marketing, product innovation, business management, and market expansion. The implementation of curricula that support digital literacy in higher education institutions has proven capable of producing skilled entrepreneurs who can compete at national and global levels, while also helping to reduce unemployment and drive national economic growth. Furthermore, digital literacy increases self-efficacy and creates a conducive ecosystem for the development of digital businesses, including in e-business, by offering broad opportunities, reducing operational costs, and increasing competitiveness in online business. The main challenges faced are the increasingly fierce global competition and the need to continuously adapt to new technological innovations. Success in achieving the vision of Indonesia Emas 2045 depends not only on mastering digital literacy but also requires active collaboration among the government, the private sector, and society to ensure inclusive and sustainable development. Overall, digital literacy is a primary pillar that must be strengthened as a strategy to develop excellent human resources and make Indonesia competitive on the world stage.

REFERENCE

- Agit, A., Julyana, S. A., & Ma'Ruf, B. (2023). Tinjauan literatur pada pengaruh literasi digital terhadap perkembangan bisnis online di era digital. In *Prosiding Seminar Nasional Amikom Surakarta* (Vol. 1, pp. 624-634).
- Anggresta, V., Maya, S., & Septariani, D. (2022). Pengaruh Literasi Digital Dan Mata Kuliah Kewirausahaan Terhadap Kesiapan Berwirausaha. *Research and Development Journal of Education*, 8(1), 153-159.
- Farlim, V., Octavian, M., Angkasa Putra, S., & Aini, S. (2024). *MENATAP INDONESIA EMAS 2045*. Samudra Biru
- Hanifa, S. (2023). Peranan literasi wirausaha, literasi digital dan lingkungan keluarga dalam mendukung minat wirausaha di kalangan mahasiswa universitas tunas pembangunan Surakarta. *jurnal*.
- Hasanah, U. U., & Setiaji, K. (2019). Pengaruh literasi digital, efikasi diri, lingkungan terhadap intensi berwirausaha mahasiswa dalam e-business. *Economic Education Analysis Journal*, 8(3), 1198-1215.
- Prabawati, S. (2019). Pengaruh efikasi diri, pendidikan kewirausahaan, literasi keuangan, dan literasi digital terhadap perilaku berwirausaha siswa smk negeri 10 Surabaya. *Jurnal Pendidikan Akuntansi (JPAK)*, 7(1).
- Wihardjo, E., Purno, M., Lilla, P. L., Novi, I., Andree, T. K., Asep, R. S., & Imam, D. Y. (2025). *PELUANG DAN TANTANGAN INDONESIA EMAS 2045*.