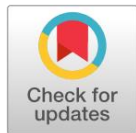


<https://research.adra.ac.id/index.php/ijen/>

P - ISSN: 2988-1579

E - ISSN: 2988-0092



A Narrative Local Wisdom-Based Educational Model for Developing Human Capital and Social Capital to Strengthen Defense in the Kalimantan Border Region

Gregorius Henu Basworo¹ , Ryan Teo² 

¹Universitas Pertahanan, Bogor, Indonesia

²Republic Polytechnic, Singapore

ABSTRACT

Background. Defending the nation inherently entails fostering community resilience, and the national security architecture requires local stability to serve as the first firewall of defense. Education in border regions must be regarded as a strategic instrument capable of developing human capital and social capital in an integrated manner, with local wisdom as its primary foundation.

Purpose. This conceptual study aims to formulate a local wisdom-based educational model that integratively develops human capital and social capital in order to reinforce community defense capacity in the Kalimantan border region.

Methods. A systematic literature synthesis was conducted using nationally accredited journals (SINTA 2 and above), Scopus-indexed international journals, scholarly books, and official government documents published between 2020 and 2026. From 86 initially gathered works, 52 core texts were selected based on relevance to the integration of human capital, social capital, and local wisdom within border education and defense. Data were analyzed using qualitative content analysis through repeated reading, coding, thematic grouping, and analysis of inter-theme relationships.

Results and Discussion. The synthesis revealed three main intertwined themes: human capital development through border education (knowledge, skills, character), strengthening social capital as a community resilience network (bonding, bridging, linking), and Kalimantan's local wisdom (huma betang, gotong royong, musyawarah adat) as the pedagogical-ideological foundation.

Conclusion. The proposed model provides a theoretical basis for further empirical testing and practical guidance for local governments, the Indonesian National Armed Forces (TNI), and customary institutions in designing culturally grounded educational programs for border areas.

KEYWORDS

Human Capital, Local Wisdom, Social Capital

Citation: Basworo, H, G & Teo, R. (2026). A Narrative Local Wisdom-Based Educational Model for Developing Human Capital and Social Capital to Strengthen Defense in the Kalimantan Border Region. *International Journal of Educational Narrative*, 4(2), 575–585. <https://doi.org/10.70177/ijen.v4i2.3781>

Correspondence:

Gregorius Henu Basworo,
gregorushenubasworo@gmail.com

Received: September 06, 2025

Accepted: December 12, 2025

Published: April 29, 2026



INTRODUCTION

The assertion that defending the nation inherently entails fostering community resilience has gained increasing recognition. The national security architecture requires local stability to serve as the first firewall of defense (Aytun, 2024; Litvinenko, 2023). Accordingly, education in the border region must be regarded as a strategic instrument capable of developing human capital and social capital in an integrated manner, with local wisdom serving as its primary foundation. Empirical data underscore the urgency of this research.

Along the Indonesia Malaysia border in Kalimantan, particularly in Entikong (West Kalimantan), Sebatik (North Kalimantan), and Badau (West Kalimantan), several indicators reveal persistent vulnerabilities. According to BNPP RI (2025), literacy rates in three border districts of North Kalimantan remain below the provincial average, 87.2 percent compared to 94.5 percent. School dropout rates at the junior secondary level reach 12.4 percent, which is significantly higher than the national average of 7.8 percent. Furthermore, the National Border Management Agency reported that 43 percent of border villages in Kalimantan lack secondary school facilities, forcing adolescents to travel 30 to 60 kilometers or cross national borders for education (Albitar, 2021; Tedesco, 2023). Economic marginalization compounds this problem. The poverty rate in Kalimantan's border subdistricts averages 22.7 percent, nearly triple the national rate of 8.5 percent (BPS, 2025). This socioeconomic fragility has direct security implications. Kompas (2025) documented increased cross border smuggling and illegal logging activities in the Malinau Nunukan corridor, with local communities often coerced into complicity due to economic desperation. These empirical conditions demonstrate that education is not merely a development issue but a defense imperative.

Conceptually, human capital encompasses the knowledge, skills, and health that enable individuals to be productive. Within the defense discourse, this definition expands to include national defense awareness and community resilience competencies (Hasselwander, 2021; Niu, 2022). Recent research trends indicate a paradigm shift in defense human capital management. Pham, (2021) demonstrate that innovative approaches now emphasize trust based leadership and anticipatory governance rather than bureaucratic training models. Similarly, Kyrianova et al. (2025) show that the VUCA environment, characterized by volatility, uncertainty, complexity, and ambiguity, demands soft skills such as critical thinking and adaptive communication, which must be cultivated from early education. Cooke, (2022) specifically argue that Indonesia's defense forces require a civil military educational pipeline for border areas. This notion aligns with the Total People's Defense (Sishankamrata) doctrine but has yet to be operationalized.

Meanwhile, social capital, consisting of networks, norms, and trust, functions as a medium through which knowledge and skills circulate and are collectively reinforced (Qian, 2023). Along the Kalimantan border, kinship ties, mutual cooperation (gotong royong), and customary networks are living forms of social capital. They serve as the primary survival mechanism when formal state structures weaken. A recent empirical study by UKM (2025) on border communities in the Sarawak Kalimantan frontier found that social capital actively creates human capital through informal knowledge sharing. Households with stronger kinship networks had 34 percent higher youth skill acquisition in agriculture and small trade compared to isolated households. This finding aligns with the global trend toward integrated capital frameworks in community development research (Jiang, 2021). Despite this, the existing literature still separates human capital and social capital into distinct discourses. Defense management research has focused on internal military human resource development, such as the synergic performance enabler model proposed by (Mohamed, 2022), yet has not elaborated on how such a model can be operationalized through civilian educational institutions in the border region. Conversely, studies on border education have largely been confined to issues of access and general curriculum relevance (Ahmad, 2022), without explicitly integrating them with defense strengthening.

The local wisdom of Kalimantan actually provides highly fertile ground to bridge this gap. Values such as the huma betang philosophy of the Dayak community, which teaches collective responsibility and solidarity, represent a pedagogical asset ready to be activated. Recent research by (Ma, 2024), through a quasi experimental study in three border schools in North Kalimantan,

demonstrated that codifying local wisdom themes in teaching materials significantly increased students' national defense spirit by an average of 41 percent on standardized resilience metrics. This finding is consistent with international trends. (Gautam, 2024) documented similar success in rural border regions of Portugal, where place based education rooted in local knowledge strengthened both student attachment and community defense awareness. In the Indonesian context, (Sturm, 2021) showed that the smong local wisdom based education model in Simeulue effectively built community preparedness for tsunami disasters. This model has since been adapted for security threats in Aceh's border areas.

To date, however, there remains no educational model that consciously and systematically utilizes local wisdom as the axis to simultaneously develop human capital and social capital and channel the outcomes of that development toward strengthening border region defense. This gap is increasingly critical given two recent policy trends. First, (Oviedo, 2022) has identified border human capital as a strategic priority for national defense industry independence. Second, the Indonesian National Army (TNI) has shifted toward a territorial education approach that relies on civilian schools as force multipliers (Miyah, 2022). Yet without an integrated model that respects local cultural logics, these top down initiatives risk alienation and failure. This constitutes the primary research lacuna and simultaneously serves as the novelty foundation of this study.

Departing from this gap, the present research aims to formulate a local wisdom based educational model that integratively develops human capital and social capital to reinforce community defense capacity in the Kalimantan border region. This objective is pursued through three steps: identifying the dominant dimensions of human capital and social capital in the lived experience of Kalimantan border communities; exploring relevant local wisdom values as a pedagogical foundation; and formulating an integrative educational model that can serve as a reference for stakeholders. By linking to recent trends in community resilience theory, integrated capital frameworks (Poquet, 2021), and place based defense education (Yigitbasioglu, 2023), this study positions itself at the intersection of educational management, defense studies, and local wisdom research. The contribution lies in presenting a model that not only enriches the body of knowledge but also provides operational guidance for local governments, the TNI, and customary institutions in constructing resilience from below. This resilience grows from native cultural roots rather than from a blueprint imported from the center.

RESEARCH METHODOLOGY

This study employed a conceptual research approach through systematic literature synthesis. Data sources comprised nationally accredited journal articles (SINTA category 2 and above), Scopus indexed international journals, scholarly books, and official government documents published between 2020 and 2026. The literature search was conducted through Scopus, Portal Garuda, SINTA, and Google Scholar databases using a combination of keywords: "human capital," "social capital," "kearifan lokal" (local wisdom), "pendidikan perbatasan" (border education), "pertahanan" (defense), and "Kalimantan." From the 86 initially gathered works, a screening was performed based on relevance to the study focus, namely the integration of human capital, social capital, and local wisdom within border education and defense. This resulted in 52 core texts. Data were analyzed using qualitative content analysis, carried out through repeated reading, coding of key findings, grouping into major themes, and analysis of inter theme relationships across the various sources. The synthesis of these relationships became the basis for formulating a conceptual educational model. Validity was maintained through source triangulation by comparing journal

articles, books, and official documents, as well as through peer debriefing with colleagues (He, 2022).

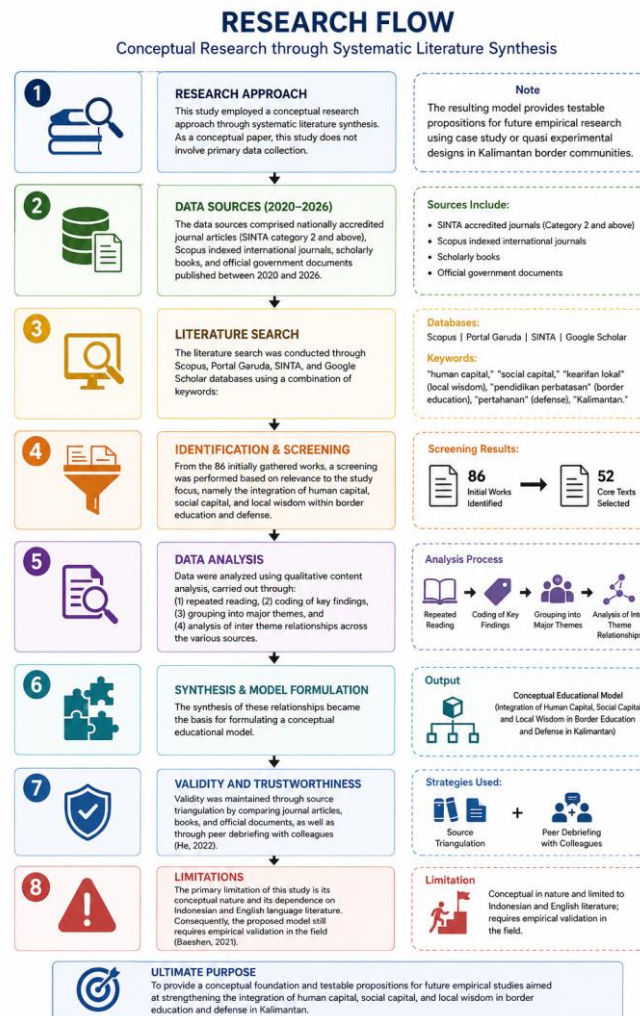


Figure 1. Research flow of conceptual literature synthesis on human capital, social capital, and local wisdom in border education and defense

Figure 1 presents the overall research procedure employed in this conceptual study through a systematic literature synthesis approach. The process begins with determining the conceptual research framework and identifying relevant secondary data sources, including nationally accredited journals, Scopus-indexed international publications, scholarly books, and official government documents published between 2020 and 2026. The literature search was conducted using databases such as Scopus, Portal Garuda, SINTA, and Google Scholar with specific keywords related to human capital, social capital, local wisdom, border education, defense, and Kalimantan. From the 86 initially collected sources, a screening and selection process was carried out to identify the most relevant literature, resulting in 52 core references for further analysis.

The selected data were then examined using qualitative content analysis through repeated reading, coding important findings, categorizing themes, and exploring relationships among themes across various sources. The synthesis of these thematic relationships became the foundation for constructing a conceptual educational model integrating human capital, social capital, and local wisdom within border education and defense contexts. To ensure validity and reliability, the study applied source triangulation and peer debriefing techniques by comparing multiple scholarly and official references. The figure also highlights the limitations of the study, particularly its conceptual

nature and dependence on Indonesian and English language literature, indicating the need for future empirical validation within Kalimantan border communities.

As a conceptual paper, this study does not involve primary data collection. The resulting model provides testable propositions for future empirical research using case study or quasi experimental designs in Kalimantan border communities. The primary limitation of this study is its conceptual nature and its dependence on Indonesian and English language literature. Consequently, the proposed model still requires empirical validation in the field (Baeshen, 2021).

RESULT AND DISCUSSION

The synthesis of the reviewed articles revealed three main, intertwined themes that form the foundation of the proposed educational model. These three themes are the development of human capital through border education, the strengthening of social capital as a community resilience network, and the role of Kalimantan's local wisdom as the axis of integration. The relationships among these themes were subsequently mapped into a conceptual model, presented in Figure 1..

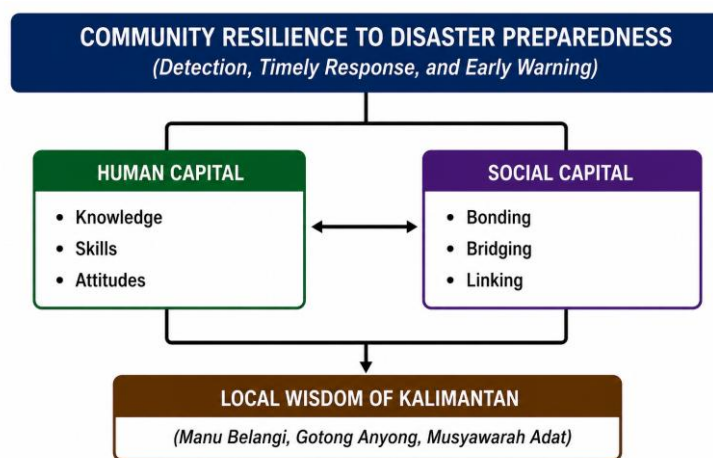


Figure 2. Local wisdom-based educational model for developing human capital and social capital to strengthen defense in the Kalimantan border region

The model places Kalimantan's local wisdom, represented by the philosophies of *huma betang*, *gotong royong*, and *musyawarah adat*, as the lowest foundation. Above it stand two pillars interconnected by reciprocal arrows. The human capital pillar encompasses knowledge, skills, and character. The social capital pillar includes bonding, bridging, and linking. The apex of the model is the defense preparedness of border communities, meaning the capacity to collectively detect, deter, and respond to non traditional threats.

Theme 1: Human Capital Development through Border Education

The first finding emerging from the literature review is that education in the Kalimantan border region holds immense potential to shape defense aware human capital, yet this potential has not been fully managed strategically. The World Bank (2020) defines human capital as the knowledge, skills, and health that enable individuals to be productive. In the defense realm, this definition expands to include national defense awareness and community resilience skills (Lemhannas, 2026). Utami et al. (2026), in their comparative study, demonstrate that socioeconomic capacity is a key factor driving sustainable human capital development. This finding is highly relevant to the economically disadvantaged Kalimantan border communities. Tippe (2025) specifically offers a defense anthropology perspective as a human capital management strategy in

border areas, emphasizing the importance of understanding cultural dimensions in managing defense human resources.

Bashtannyk et al. (2025) stress that human capital management in the security and defense sector requires innovative approaches that transcend conventional training bureaucracy and touch on the dimensions of trust and leadership. Meanwhile, Muha and Silitonga (2025) and Kyrianova et al. (2025) specifically indicate that the mastery of soft skills such as critical thinking, adaptive communication, and leadership is an absolute necessity for defense personnel in the VUCA era. Such skills should ideally be cultivated from basic education. Jaya (2025), in his dissertation on strengthening the Joint Regional Defense Command (Kogabwilhan), asserts that defense force development in strategic areas like the Kalimantan border is highly dependent on the quality of human resources systematically prepared through education. These findings confirm that human capital development in the border region must be directed at shaping border individuals who are not only economically skilled but also possess the awareness of being the nation's frontline. Schools are the most strategic vehicle to realize this goal.

Theme 2: Strengthening Social Capital as a Community Resilience Network

The second finding reveals the abundant existence of social capital in Kalimantan border communities. Social capital has long served as the primary survival mechanism when formal central structures are not fully present. The OECD (2020) defines social capital as networks, norms, and trust that facilitate cooperation. On the Kalimantan border, the bonding social capital dimension is visible in the close kinship within a single ethnic group. Bridging social capital emerges in shared economic activities at border markets. Linking social capital appears in the relationship between customary leaders and TNI officers. BRIN (2025) specifically shows that the social resilience of Entikong residents in facing ASEAN integration pressures depends heavily on the strength of their social capital. The *Askar Wataniah* case on the Indonesia Malaysia border illustrates how closely welfare, defense, and social capital are intertwined (BRIN, 2025).

(Ren, 2021), in their study in Paloh, Sambas, West Kalimantan, found that the border community's kinship system functions as effective social capital in facing non military threats. Strong familial bonds can serve as an early warning system and a natural defense solidarity. Ningsih et al. (2025), through a case study in Sungai Limau, Central Sebatik, Nunukan, proved that the implementation of national defense values among border communities significantly strengthens community resilience in facing proxy war threats. Custom based social capital is the medium for transmitting these values. (Rahim, 2021) also highlight how kinship ties on the Indonesia Timor Leste border can be both a challenge and an opportunity for border security, depending on how the state manages them. Mazid et al. (2025), in their research in Batam, proposed the development of a social defense system for border areas based on local social capital. This approach is highly relevant for adaptation in Kalimantan. (Shahbaz, 2022) even demonstrated how local resources and social capital in North Sebatik can be empowered to achieve food security, an important dimension of overall border region resilience.

More importantly, (Yu, 2021) provides evidence that social capital actively functions in creating human capital through informal knowledge sharing and trust among neighbors. In the Kalimantan border region, similar mechanisms occur when a child learns from parents or customary figures through established kinship networks. (Parker, 2024), in their study on digital skills training for coastal communities in South Sulawesi, showed that integrating human capital and social capital in community training design significantly enhances program effectiveness. This offers a valuable lesson applicable to the border education context. However, also warns that social capital can become fragmented due to prolonged conflict or marginalization, which instead weakens

community resilience. Therefore, the proposed model positions the strengthening of all three social capital dimensions as pillars that must be continuously nurtured through participatory and community engaging educational activities.

Theme 3: Local Wisdom as the Pedagogical and Ideological Foundation

The third finding, which constitutes the most important contribution of this synthesis, is that Kalimantan's local wisdom is not merely a curricular supplement but rather the core foundation capable of uniting human capital and social capital development toward defense preparedness. (Maitre, 2021) have demonstrated through research in North Kalimantan that codifying local wisdom themes in teaching materials significantly enhances border students' national defense spirit. Values such as strengthening national identity, character and moral formation, and cultural resilience can indeed be cultivated by grounding them in local traditions. Ardianto et al. (2020), in their study on community civic education in Central Sebatik, North Kalimantan, found that a local wisdom based approach is very effective in building national defense awareness among border communities. (Omri, 2021), more applicatively, designed a local wisdom based learning model in Entikong, West Kalimantan, showing that integrating customary values in the learning process can improve not only students' academic achievement but also their love for the homeland and awareness of their strategic position as border citizens.

This finding is consistent with the study by (LIU, 2021) in Simeulue, which showed that the local wisdom based "*smong*" education model effectively builds community preparedness for tsunami disasters. (Marco-Lajara, 2023) even documented similar success in rural border regions of Portugal, where local knowledge integrated into learning experiences proved to strengthen students' attachment to their communities while equipping them with relevant skills. For Kalimantan border defense, the *huma betang* value, which teaches collective responsibility for the security of the longhouse and solidarity among its inhabitants, can serve as a far stronger ideological framework than the state defense doctrine taught abstractly and uniformly from the center. By making local wisdom the foundation, education no longer merely transfers knowledge but revitalizes deeply rooted values, making defense a part of everyday life.

The overall meaning of these findings is that education possesses immense leverage in managing human capital and social capital simultaneously, but this leverage will only work optimally if education is rooted in local culture. The model in Figure 1 offers an answer to the question posed in the introduction, namely how education can function as a governance instrument that integrates both forms of capital by basing them on local wisdom to strengthen defense. By placing local wisdom as the foundation, this model is not only culturally relevant but also potentially sustainable because its energy comes from values that have been lived and passed down across generations. This dispels the dominant assumption that defense education models in border areas must always rely on a blueprint from the center.

Addressing Alternative Interpretations: Dual Loyalty

Alternative interpretations of these findings need to be considered, particularly the possibility that local wisdom does not always have a positive impact on defense. Some border communities have very strong cross border kinship ties, which in certain situations can give rise to dual loyalties. This is acknowledged by (Marco-Lajara, 2023) in its study on the societal security approach at the North Kalimantan border, which shows that uniform policies from the center often do not align with the customs and traditions of border communities. (Lin, 2023) also noted a similar dilemma on the Indonesia Timor Leste border, where kinship ties can be both a security vulnerability and a diplomatic bridge. (Apergis, 2022) in Paloh, Sambas, found that strong kinship systems are

sometimes exploited by transnational crime networks due to ethnic solidarity that transcends national loyalty.

Therefore, the proposed model emphasizes that the activation of local wisdom must always be accompanied by the strengthening of linking social capital, meaning constructive connections between customary communities and state institutions such as the TNI and local governments. (Ramadani, 2022) proved that when national defense values are integrated with local social capital through a participatory approach, national loyalty can actually be strengthened without negating customary identity.

Table 1. Main themes of the literature synthesis and their contributions to the educational model

Main Theme	Key Articles	Contribution to the Model
Human capital development in education and defense	World Bank (2020); Lemhannas (2026); Bashtannyk et al. (2025); Muha & Silitonga (2025); Kyrianova et al. (2025); Utami et al. (2026); Tippe (2025); Jaya (2025)	Formulating the specific components of knowledge, skills, and character that must be built in border students
Strengthening social capital as a resilience network	OECD (2020); BRIN (2025); Iskandar et al. (2020); Ningsih et al. (2025); Dominggus et al. (2025); Mazid et al. (2025); Haryanto et al. (2023); UKM (2025); Young et al. (2026)	Identifying the bonding, bridging, and linking dimensions that serve as community survival mechanisms and must be activated through education
Local wisdom as a pedagogical and ideological foundation	Yanti et al. (2025); Rahman et al. (2021); Atlantis Press (2020); Ardianto et al. (2020); Habibi (2022); Schafft et al. (2023)	Providing core values (<i>huma betang, gotong royong</i>) as the axis for integrating human capital and social capital toward defense preparedness

Table 1 shows that articles on local wisdom explicitly linking it to education and defense still need further enrichment, although significant progress has been made by the studies of (Wang, 2022), and Ardianto et al. (2020). On the other hand, discussions on human capital and social capital are already more abundant and provide a solid foundation for the model. This reaffirms the gap addressed by this research and explains why the proposed model places local wisdom as the fulcrum standing parallel to the other two pillars. This model does not merely combine three elements but demonstrates the mechanism through which local wisdom serves as a catalyst that enables human capital and social capital to reinforce one another within a defense framework.

CONCLUSION

The educational model resulting from this literature synthesis positions Kalimantan's local wisdom, such as the philosophies of *huma betang*, *gotong royong*, and *musyawarah adat*, as the foundation that unites human capital development and social capital strengthening simultaneously. The integration of these two pillars, each combining competencies of knowledge, skills, and character with the dimensions of bonding, bridging, and linking, has been conceptually shown to lead toward the defense preparedness of border communities. This finding affirms that education grounded in local values not only strengthens individual capacity and social cohesion but also makes defense a part of the community's way of life, growing from its own cultural roots. Thus, the

doctrine of Total People's Defense (Sishankamrata) gains a more grounded and sustainable operational pathway through formal and informal educational institutions in border regions.

The significance of this study lies in filling the conceptual gap that has long separated the discourses of educational management, defense human resource management, and local wisdom studies. The proposed model not only expands the defense organization development framework, previously limited to internal military settings, but also provides a new direction for local content curriculum policies with an explicit defense perspective. Practically, this model can serve as an initial reference for local governments, the TNI, and customary institutions in designing educational programs that are adaptive to the socio cultural characteristics of border areas. Although conceptual in nature and requiring empirical validation through further field research, this model offers a solid foundation for building regional resilience from the most basic level, namely the classroom and the customary community. This ensures that the state's presence at the border is no longer solely physical but is also present in the awareness and solidarity of its citizens.

DECLARATION OF AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

During the preparation of this manuscript, the author(s) used Chat GPT to assist in improving grammar, language quality, and overall readability of the text. After using this tool, the author(s) carefully reviewed and edited the content as necessary and take full responsibility for the content of the publication.

ACKNOWLEDGEMENT

The author would like to express sincere gratitude to the Badan Nasional Pengelola Perbatasan Republik Indonesia (BNPP RI) and the Lembaga Ketahanan Nasional (Lemhannas RI) for providing open access to official documents and policy reports that substantially enriched the literature base of this study. Appreciation is also extended to colleagues from the faculty of management and defense studies for their constructive feedback during the peer debriefing process. Any remaining errors or omissions are the sole responsibility of the author.

DECLARATION OF COMPETING INTEREST

The author declares that he has no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

REFERENCES

- Ahmad, M. M. (2022). Climate change impacts of drought on the livelihood of dryland smallholders: Implications of adaptation challenges. *International Journal of Disaster Risk Reduction*, 80(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1016/j.ijdr.2022.103210>
- Albitar, K. (2021). Auditing in times of social distancing: The effect of COVID-19 on auditing quality. *International Journal of Accounting and Information Management*, 29(1), 169–178. <https://doi.org/10.1108/IJAIM-08-2020-0128>
- Apergis, N. (2022). Energy poverty and education: Fresh evidence from a panel of developing countries. *Energy Economics*, 106(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1016/j.eneco.2021.105430>
- Aytun, C. (2024). Associating environmental quality, human capital, financial development and technological innovation in 19 middle-income countries: A disaggregated ecological

- footprint approach. *Technology in Society*, 76(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1016/j.techsoc.2023.102445>
- Baeshen, Y. (2021). Determinants of Green Innovation to Achieve Sustainable Business Performance: Evidence From SMEs. *Frontiers in Psychology*, 12(Query date: 2026-05-21 13:51:22). <https://doi.org/10.3389/fpsyg.2021.767968>
- Cooke, F. L. (2022). Building sustainable societies through human-centred human resource management: Emerging issues and research opportunities. *International Journal of Human Resource Management*, 33(1), 1–15. <https://doi.org/10.1080/09585192.2021.2021732>
- Gautam, S. (2024). Concept of mental health and mental well-being, it's determinants and coping strategies. *Indian Journal of Psychiatry*, 66(Query date: 2026-05-21 13:51:22). https://doi.org/10.4103/indianjpsychiatry.indianjpsychiatry_707_23
- Hasselwander, M. (2021). Building back better: The COVID-19 pandemic and transport policy implications for a developing megacity. *Sustainable Cities and Society*, 69(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1016/j.scs.2021.102864>
- He, Y. (2022). Crossing the digital divide: The impact of the digital economy on elderly individuals' consumption upgrade in China. *Technology in Society*, 71(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1016/j.techsoc.2022.102141>
- Jiang, H. (2021). Can smart city construction facilitate green total factor productivity? A quasi-natural experiment based on China's pilot smart city. *Sustainable Cities and Society*, 69(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1016/j.scs.2021.102809>
- Lin, T. (2023). Does green credit really increase green technology innovation? *Science Progress*, 106(3). <https://doi.org/10.1177/00368504231191985>
- Litvinenko, V. S. (2023). Assessment of the role of the state in the management of mineral resources. *Journal of Mining Institute*, 259(Query date: 2026-05-21 13:51:22), 95–111. <https://doi.org/10.31897/PMI.2022.100>
- LIU, M. y. (2021). Does poverty-alleviation-based industry development improve farmers' livelihood capital? *Journal of Integrative Agriculture*, 20(4), 915–926. [https://doi.org/10.1016/S2095-3119\(20\)63449-9](https://doi.org/10.1016/S2095-3119(20)63449-9)
- Ma, W. (2024). Climate-smart agriculture: Adoption, impacts, and implications for sustainable development. *Mitigation and Adaptation Strategies for Global Change*, 29(5). <https://doi.org/10.1007/s11027-024-10139-z>
- Maitre, L. (2021). Early-life environmental exposure determinants of child behavior in Europe: A longitudinal, population-based study. *Environment International*, 153(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1016/j.envint.2021.106523>
- Marco-Lajara, B. (2023). Does green intellectual capital affect green innovation performance? Evidence from the Spanish wine industry. *British Food Journal*, 125(4), 1469–1487. <https://doi.org/10.1108/BFJ-03-2022-0298>
- Miyah, Y. (2022). COVID-19 Impact on Public Health, Environment, Human Psychology, Global Socioeconomy, and Education. *Scientific World Journal*, 2022(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1155/2022/5578284>
- Mohamed, M. M. A. (2022). Causality between Technological Innovation and Economic Growth: Evidence from the Economies of Developing Countries. *Sustainability Switzerland*, 14(6). <https://doi.org/10.3390/su14063586>
- Niu, G. (2022). Broadband infrastructure and digital financial inclusion in rural China. *China Economic Review*, 76(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1016/j.chieco.2022.101853>
- Omri, A. (2021). Does renewable energy modulate the negative effect of environmental issues on the socio-economic welfare? *Journal of Environmental Management*, 278(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1016/j.jenvman.2020.111483>
- Oviedo, L. (2022). Coping and Resilience Strategies among Ukraine War Refugees. *International Journal of Environmental Research and Public Health*, 19(20). <https://doi.org/10.3390/ijerph192013094>

- Parker, E. D. (2024). Economic costs of diabetes in the u.S. in 2022. *Diabetes Care*, 47(1), 26–43. <https://doi.org/10.2337/dci23-0085>
- Pham, L. D. Q. (2021). Building business resilience to external shocks: Conceptualising the role of social networks to small tourism & hospitality businesses. *Journal of Hospitality and Tourism Management*, 48(Query date: 2026-05-21 13:51:22), 210–219. <https://doi.org/10.1016/j.jhtm.2021.06.012>
- Poquet, O. (2021). Developing capabilities: Lifelong learning in the age of AI. *British Journal of Educational Technology*, 52(4), 1695–1708. <https://doi.org/10.1111/bjet.13123>
- Qian, Y. (2023). Can artificial intelligence improve green economic growth? Evidence from China. *Environmental Science and Pollution Research*, 30(6), 16418–16437. <https://doi.org/10.1007/s11356-022-23320-1>
- Rahim, S. (2021). Do natural resources abundance and human capital development promote economic growth? A study on the resource curse hypothesis in Next Eleven countries. *Resources Environment and Sustainability*, 4(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1016/j.resenv.2021.100018>
- Ramadani, V. (2022). Entrepreneurship Education and Graduates' Entrepreneurial Intentions: Does Gender Matter? A Multi-Group Analysis using AMOS. *Technological Forecasting and Social Change*, 180(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1016/j.techfore.2022.121693>
- Ren, S. (2021). Digitalization and energy: How does internet development affect China's energy consumption? *Energy Economics*, 98(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1016/j.eneco.2021.105220>
- Shahbaz, M. (2022). Does economic growth stimulate energy consumption? The role of human capital and R&D expenditures in China. *Energy Economics*, 105(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1016/j.eneco.2021.105662>
- Sturm, T. (2021). 'Constituent Covid-19 apocalypses: Contagious conspiracism, 5G, and viral vaccinations.' *Anthropology and Medicine*, 28(1), 122–139. <https://doi.org/10.1080/13648470.2020.1833684>
- Tedesco, A. M. (2023). Beyond ecology: Ecosystem restoration as a process for social-ecological transformation. *Trends in Ecology and Evolution*, 38(7), 643–653. <https://doi.org/10.1016/j.tree.2023.02.007>
- Wang, J. (2022). Envisaging the carbon emissions efficiency of digitalization: The case of the internet economy for China. *Technological Forecasting and Social Change*, 184(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1016/j.techfore.2022.121965>
- Yigitbasioglu, O. (2023). Digital transformation and accountants as advisors. *Accounting Auditing and Accountability Journal*, 36(1), 209–237. <https://doi.org/10.1108/AAAJ-02-2019-3894>
- Yu, X. (2021). Economic effects analysis of environmental regulation policy in the process of industrial structure upgrading: Evidence from Chinese provincial panel data. *Science of the Total Environment*, 753(Query date: 2026-05-21 13:51:22). <https://doi.org/10.1016/j.scitotenv.2020.142004>

Copyright Holder :

© Gregorius Henu Basworo et al. (2026).

First Publication Right :

© International Journal of Educational Narratives

This article is under:

