

DAFTAR PUSTAKA

- Adebayo, I. T., S. O. Ajibola, A. A. Ahmad, P. Cartujo, I. T. Muritala, I. O. Elegbede, P. Cabral, & V. Martos. (2025). Understanding the application of digital technologies in aquaculture supply chains through a systematic literature review. *Aquaculture International*, 33(6), 397. <https://doi.org/10.1007/s10499-025-02069-7>
- Arridha, R. (2018). Design and Implementation of IoT–Big Data Analytic for Smart Environment Monitoring System. Thesis Report. Open Science Framework.
- Awaluddin, R., L. M. Baga, & O. Suparno. (2018). Business model canvas innovation and blue ocean strategy for eFishery. In *Proceedings of the 1st International Conference on Islamic Economics, Business, and Philanthropy (ICIEBP 2017)* (pp. 680–686). <https://doi.org/10.5220/0007087906800686>
- Badiola Amillategui, M. (2017). Land Based On-Growing of Atlantic Cod (*Gadus morhua*) and Salmon (*Salmo salar*) Using Recirculation Aquaculture Systems in The Basque Country: Contributions to Scientific Understanding of Economic Feasibility And Environmental Sustainability. Dissertation/Report.
- Bappenas, K., & Kementerian Kelautan dan Perikanan. (2014). *Kajian Strategi Pengelolaan Perikanan Berkelanjutan*. Kementerian PPN/Bappenas Direktorat Kelautan dan Perikanan, 120.
- Benarda, B., A. Suharyanto, & R. Mastuti. (2019). Business model of fish cultivator group in Jampang Village with a business model canvas approach. *Proceedings of Community Development*, 2, 386–397.
- Benestan, L., P.-A. Gagnaire, A. Teixeira, C. Gregori, E. Desmarais, et al. (2025). Using a comprehensive donor and host dataset to decipher the heritability and genetic architecture of pearl traits in the black-lipped oyster (*Pinctada margaritifera*). *Aquaculture*, 742837.
- Biazi-Neto, V., & C. Marques. (2023). Industry 4.0-based smart systems in aquaculture: A comprehensive review. *Aquacultural Engineering*, 103, 102360. <https://doi.org/10.1016/j.aquaeng.2023.102360>
- Boyd, C. E., A. A. McNevin, & R. P. Davis. (2018). Production methods and resource use at *Litopenaeus vannamei* and *Penaeus monodon* farms in India compared with previous findings from Thailand and Vietnam. *Journal of the World Aquaculture Society*, 49(3), 551–569.
- Bush, S., & P. Oosterveer. (2019). *Governing Sustainable Seafood*. Routledge.
- Campbell, S., M. Greenwood, S. Prior, T. Shearer, K. Walkem, S. Young, D. Bywaters, & K. Walker. (2020). Purposeful sampling: Complex or simple? research case examples. *Journal of Research in Nursing*, 25(8), 652–661.
- Joint Research Centre, European Commission. (2008). *Handbook on Constructing Composite Indicators: Methodology and User Guide*. OECD Publishing.

- Chandran, P. J. I., M. Suresh, R. Kumar, & M. Balakrishnan. (2025). Smart technologies in aquaculture: An integrated IoT, AI, and blockchain framework for sustainable growth. *Aquacultural Engineering*, 111, 102584.
- Chen, H., R. H. L. Chiang, & V. C. Storey. (2012). Business intelligence and analytics: From big data to big impact. *MIS Quarterly*, 36(4), 1165–1188.
- Chiu, M.-C., C.-H. Tsai, Y.-C. Lin, & T.-T. Lin. (2022). Development of smart aquaculture farm management system using IoT and AI-based surrogate models. *Journal of Agriculture and Food Research*, 9, 100357.
- Costa-Pierce, B. A. (2010). Sustainable ecological aquaculture systems: The need for a new social contract for aquaculture development. *Marine Technology Society Journal*, 44(3), 88–112.
- Davis, M. C., R. Challenger, D. N. W. Jayewardene, & C. W. Clegg. (2014). Advancing socio-technical systems thinking: A call for bravery. *Applied Ergonomics*, 45(2), 171–180.
- Davis, R. P., & C. E. Boyd. (2021). Current research in environmental sustainability. *Current Research in Environmental Sustainability*, 3, 100069.
- Diedrich, A., E. Jimenez, K. L. L. Oleson, & J. E. Cinner. (2019). Socio-economic drivers of adoption of small-scale aquaculture in Indonesia. *Sustainability*, 11(6), 1543.
- Edwards, P. (1998). A systems approach for the promotion of integrated aquaculture. *Aquaculture Economics & Management*, 2(1), 1–12.
- Eisenhardt, K. M., & M. E. Graebner. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25–32.
- Eijnatten, F. M. van. (2013). Developments in socio-technical systems design (STSD). In *A Handbook Of Work And Organizational Psychology* (pp. 61–88). Psychology Press.
- Guo, J., J. Lin, & X. Luo. (2025). Enhancing organizational resilience through big data analytics capability: The mediating role of strategic flexibility. *Information Technology & People*, 38(1), 1–39.
- Hambrey, J. (2017). The 2030 Agenda and the Sustainable Development Goals: The Challenge for Aquaculture Development and Management. *FAO Fisheries and Aquaculture Circular* (C1141).
- Hungevu, R., S. Kumar, & P. Singh. (2025). The impact of low-cost technological innovations on sustainable fisheries for economic development in developing countries. *World Journal of Advanced Research and Reviews*, 25(2), 1170–1184.
- Izharuddin, M. (2025). Institutionalized digital sustainability in aquaculture: End-to-end digitally enabled innovation. *International Journal of Innovation Science*.
- Kanwal, S., M. A. Khan, A. Rehman, & I. Ahmad. (2024). An optimal Internet of Things-driven intelligent decision-making system for real-time fishpond water quality monitoring and species survival. *Sensors*, 24(23), 7842.

- Kruk, S. R. L., S. Kloppenburg, & F. Lovita. (2025). Digital platforms governing practices: How data objects reconfigure Indonesian fish farming. *Journal of Rural Studies*, 119, 103764.
- Kruk, S. R. L., H. M. Toonen, & S. R. Bush. (2024). Digital sustainability assurance governing global value chains: The case of aquaculture. *Regulation & Governance*, 18(4), 1153–1170.
- Lee, J., B. Bagheri, & H.-A. Kao. (2015). A cyber-physical systems architecture for Industry 4.0-based manufacturing systems. *Manufacturing Letters*, 3, 18–23.
- Li, P., Y. Zhang, H. Liu, & J. Chen. (2025). Reviews on the development of digital intelligent fisheries technology in aquaculture. *Aquaculture International*, 33(3), 191.
- Liu, Q., Z. Wang, & Y. Chen. (2008). Design of a smart pH value transducer for measuring aquaculture water quality. *Transactions of the Chinese Society of Agricultural Engineering*, 24, 138–141.
- Liu, T., H. Zhang, X. Li, & Y. Wang. (2022). Optimization of the intelligent sensing model for environmental information in aquaculture waters based on the 5G smart sensor network. *Journal of Sensors*, 2022, 6409046.
- Mandal, A., & A. R. Ghosh. (2024). Role of artificial intelligence (AI) in fish growth and health status monitoring: A review on sustainable aquaculture. *Aquaculture International*, 32(3), 2791–2820.
- Marlina, M., A. Rahman, & D. A. Putri. (2025). Analisis profitabilitas dan efisiensi operasional pada industri perikanan skala kecil di Indonesia. *Jurnal Serambi Engineering*, 10(3).
- Mustafa, S., M. M. Rahman, & N. Ahmed. (2021). Technological applications and adaptations in aquaculture for progress towards sustainable development and seafood security. In *IOP Conference Series: Earth and Environmental Science* (Vol. 860, 012041). IOP Publishing.
- Ottinger, M., D. Slagstad, & B. Belton. (2026). Pond aquaculture dynamics in Asia: Satellite time series for analyzing the spatio-temporal development of coastal aquaculture. *Aquaculture*, 610, 742940.
- Piplani, D., V. Chavan, & S. Sharma. (2015). Digital platform for data driven aquaculture farm management. In *Proceedings of the 7th Indian Conference on Human–Computer Interaction* (pp. 95–101).
- Qin, Y., S. Wang, & N. Gao. (2022). Coordination mechanism of e-closed-loop supply chain under social preference. *Sustainability*, 14(20), 13654.
- Raju, K. R. S. R., & G. H. K. Varma. (2017). Knowledge based real time monitoring system for aquaculture using IoT. In *2017 IEEE 7th International Advance Computing Conference (IACC)* (pp. 318–321). IEEE.
- Rastegari, H., A. Banihashemi, & M. Ahmadi. (2023). Internet of Things in aquaculture: A review of the challenges and potential solutions based on current and future trends. *Smart Agricultural Technology*, 4, 100187.

- Rowan, N. J., C. M. Galanakis, & V. Prieto-Sandoval. (2022). Digital transformation of peatland eco-innovations (Paludiculture): Enabling a paradigm shift towards the real-time sustainable production of green-friendly products and services. *Science of the Total Environment*, 838, 156328.
- Rowley, J. (2007). The wisdom hierarchy: Representations of the DIKW hierarchy. *Journal of Information Science*, 33(2), 163–180.
- Ruiz Campo, S., & S. Zúñiga-Jara. (2018). Reviewing capital cost estimations in aquaculture. *Aquaculture Economics & Management*, 22(1), 72–93.
- Sampantamit, T., L. Ho, W. Van Echelpoel, & P. L. M. Goethals. (2020). Aquaculture production and its environmental sustainability in Thailand: Challenges and potential solutions. *Sustainability*, 12(5), 2010.
- Scholz, R. W., & O. Tietje. (2002). *Embedded Case Study Methods: Integrating Quantitative And Qualitative Knowledge*. Sage Publications.
- Setiawan, B., & N. Surantha. (2024). Smart aquaculture design for vannamei shrimp farming based on quality function development. *CommIT Journal*, 18(2), 229–250.
- Sharma, D., & R. Kumar. (2021). Smart aquaculture: Integration of sensors, biosensors, and artificial intelligence. In *Biosensors In Agriculture: Recent Trends And Future Perspectives* (pp. 455–464). Springer.
- Thach, K. S. R., H. T. Vo, & J.-Y. Lee. (2021). Technical efficiency and output losses in shrimp farming: A case in Mekong Delta, Vietnam. *Fishes*, 6(4), 59.
- Food and Agriculture Organization of the United Nations. (2022). *The State Of World Fisheries And Aquaculture 2022*. FAO.
- Food and Agriculture Organization of the United Nations. (2024). *The State Of World Fisheries And Aquaculture 2024*. FAO.
- Tran, T., T. H. Nguyen, & D. Q. Pham. (2024). Methods and technical means of nonintrusive assessment of fish biomass and robotic maintenance of cage aquaculture. In *International Conference On Agriculture Digitalization And Organic Production* (pp. 207–215). Springer.
- Valenti, W. C., J. M. Kimpara, B. L. Preto, & P. Moraes-Valenti. (2018). Indicators of sustainability to assess aquaculture systems. *Ecological Indicators*, 88, 402–413.
- Vo, T. T. E., T. T. Nguyen, & J.-Y. Lee. (2021). Overview of smart aquaculture system: Focusing on applications of machine learning and computer vision. *Electronics*, 10(22), 2882.
- Wang, X., L. Zhang, Y. Chen, & J. Li. (2023). Research progress of intelligent identification technology in aquaculture. *Journal of South China Agricultural University*, 44(1), 24–33.
- Xi, C., Y. Zhang, H. Liu, & J. Wang. (2026). Enhanced deep OC-SORT with YOLOv8-seg for robust fry tracking and behavior analysis in aquaculture. *Aquaculture*, 610, 742887.