

BAB V

PENUTUP

5.1. Kesimpulan

- 5.1.1. Berdasarkan temuan yang diperoleh dari penelitian yang dilakukan di Air Haji, Kecamatan Linggo Sari Baganti, Kabupaten Pesisir Selatan, terkait penanganan dan distribusi ikan segar, menghadapi tantangan dalam menjaga kualitas, kebersihan, dan integritas produk secara keseluruhan. Durasi pelayaran antara kapal yang lebih besar dan kapal yang kecil memberikan pengaruh langsung pada kesegaran ikan.
- 5.1.2. Masalah utama yang dibahas dalam penelitian ini berkaitan dengan implementasi logistik halal yang belum optimal dalam pengelolaan ikan segar. Pemahaman publik yang tidak memadai tentang konsep *halalan thayyiban*, Transportasi digunakan rentan terhadap kontaminasi, Termasuk penerapan bahan pengawet untuk mempertahankan penampilan ikan segar selama distribusi jauh. Faktor lingkungan juga signifikan, karena kondisi pelabuhan dan lokasi lelang yang tidak bersih, adanya limbah pembuangan air ikan dan sampah yang berserakan memperburuk risiko kontaminasi. Situasi ini semakin diperburuk oleh pemanfaatan wadah penyimpanan yang diletakkan diatas tanah yang tidak bersih tersebut. Kurangnya sistem pengawasan, pembinaan, dan regulasi telah mengakibatkan pelaksanaan praktik logistik halal yang tidak konsisten dan tidak terkoordinasi.
- 5.1.3. Berdasarkan permasalahan yang telah diidentifikasi, solusi untuk meningkatkan pelaksanaan logistik halal pada ikan segar perlu dilakukan secara menyeluruh dan terpadu dimulai dari pemerintah daerah dan pemangku kepentingan yang bersangkutan.

5.2. Keterbatasan penelitian

Temuan yang diperoleh dari penelitian ini menghasilkan implikasi yang signifikan untuk perumusan kebijakan. Pertama, penetapan pedoman logistik halal khusus sektor sangat penting, pedoman tersebut harus secara efektif menerjemahkan peraturan nasional kedalam standar operasional yang berkaitan dengan perikanan tradisional. Pedoman ini harus menggarisbawahi protokol kebersihan pragmatis, pemisahan mekanisme logistik berbasis risiko, dan penerapan strategi kepatuhan bertahap yang selaras dengan kemampuan lokal.

Kedua, mendorong kolaborasi kelembagaan antara otoritas halal, lembaga perikanan, dan entitas pemerintah daerah sangat penting untuk kemajuan inisiatif pembangunan kapasitas yang berkonsentrasi pada literasi halal, keamanan pangan, dan manajemen pasca tangkapan. Kerangka kebijakan harus melampaui sekadar menekankan sertifikasi, harus memprioritaskan inisiatif pendidikan, peluang pendampingan, dan pengawasan berkelanjutan untuk usaha kecil. Ketiga, peningkatan dan penyediaan infrastruktur logistik yang mematuhi standar halal mencakup unit penyimpanan ikan khusus, fasilitas penyimpanan anitasi, dan sistem transportasi yang dapat dilacak memiliki potensi untuk meningkatkan kualitas produk dan melindungi kepentingan konsumen. Inisiatif ini secara bersamaan meningkatkan daya saing produk perikanan sekaligus memfasilitasi pembentukan ekosistem ekonomi halal berbasis kelautan.

1.3. Saran

Upaya penelitian selanjutnya dapat memperluas ruang lingkup penyelidikan ini dengan melakukan analisis komparatif wilayah pesisir untuk menjelaskan dampak dinamika sosial, budaya, dan kelembagaan pada implementasi logistik halal dalam perikanan skala kecil. Pernyataan kuantitatif yang menghubungkan tingkat kepatuhan logistik halal dengan kepercayaan konsumen, struktur harga dan aksesibilitas pasar juga penting untuk memperkuat landasan empiris yang diperlukan untuk pengembangan

kebijakan terinformasi. Pemanfaatan teknologi keterlacakan digital seperti sistem blockchain atau aplikasi seluler memerlukan pemeriksaan lebih lanjut untuk mengevaluasi kepraktisan dan efeknya dalam komunitas nelayan yang terbatas sumber daya. Kerangka interdisipliner yang mengintegrasikan logistik halal dengan prinsip-prinsip keberlanjutan dan ekonomi biru menjanjikan untuk menghasilkan model yang lebih holistik yang menyelaraskan kepatuhan syari'ah, pengelolaan lingkungan, dan kemajuan ekonomi inklusif.

1.4. Implikasi

Implikasi utama dari penelitian ini bahwa penerapan logistik halal dalam perikanan tradisional tidak dapat dianggap hanya sebagai realisasi aspek halal produk, tetapi harus dikonseptualisasikan sebagai sistem komprehensif yang mencakup jaminan kualitas, standar kebersihan, protokol keamanan pangan, dan tata kelola distribusi. Pemangku kepentingan yang bersangkutan harus bekerja sama dengan pemerintah daerah untuk mengambil solusi agar kualitas ikan tetap unggul. Hasil penelitian ini menunjukkan perlunya transformasi kerangka kebijakan daerah dari pendekatan formatif ke kerangka operasional kontekstual dan praktis, khususnya dalam adaptasi peraturan nasional menjadi standar yang sesuai dengan keadaan yang dihadapi oleh nelayan skala kecil.

Dari perspektif pragmatis, penelitian ini menggambarkan bahwa meningkatkan literasi halal, memperkuat pengawasan berbasis bimbingan, dan membangun infrastruktur logistik yang higienis dan terpisah adalah elemen penting dalam menjaga integritas ikan segar sambil melindungi konsumen dari bahaya kontaminasi dan praktik yang tidak aman. Dari sudut pandang akademis, temuan penelitian ini berkontribusi pada wacana logistik halal dengan memberikan bukti empiris yang berasal dari sektor perikanan tradisional, sehingga membuka jalan bagi perumusan model logistik halal yang diselaraskan dengan prinsip-prinsip keberlanjutan, ekonomi biru, dan teknologi keterlacakan, sehingga membuatnya relevan untuk inovasi

kebijakan, penyelidikan ilmiah lanjutan, dan memperkuat ekosistem halal berbasis laut.



DAFTAR PUSTAKA

- Adenan, Faezy, and Asmak Ab Rahman. 2020. "Menjaga Keamanan Negara Menurut Perspektif Maqāsid Syariah Serta Hubungannya Dengan Matlamat Pembangunan Lestari [Sustainable Development Goals]: Kajian Di Malaysia (National Peace Preservation According to the Maqāsid Syariah Perspective and Its Relation." *UMRAN - International Journal of Islamic and Civilizational Studies* 7 (1): 33–47. <https://doi.org/10.11113/umran2020.7n1.375>.
- AftabUddin, Sheikh, M. Gulam Hussain, Mamun Abdullah Al, Pierre Failler, and Benjamin M. Drakeford. 2021. "On the Potential and Constraints of Mariculture Development in Bangladesh." *Aquaculture International* 29 (2): 575–93. <https://doi.org/10.1007/s10499-020-00643-9>.
- Al-Kuraieef, Amal Nasser. 2021. "Microbiological, Chemical and Organoleptic Evaluation of Fresh Fish and Its Products Irradiated By Gamma Rays." *Potravinarstvo Slovak Journal of Food Sciences* 15 (November 2020): 95–100. <https://doi.org/10.5219/1505>.
- Al-Mawarid, Ibnu Salam, and Siti Ngainnur Rohmah. 2023. "Urgensi Peralihan Kewenangan Sertifikasi Jaminan Produk Halal Majelis Ulama Indonesia Kepada Badan Penyelenggara Jaminan Produk Halal." *SALAM: Jurnal Sosial Dan Budaya Syar-I* 10 (2): 551–64. <https://doi.org/10.15408/sjsbs.v10i2.31973>.
- Al, Zainal Arifin et. 2021. "Positioning Halalan Toyyiban in Halal Food System : " 1 (2): 17–40.
- Ambrosio, Rosa Luisa, Marta Gogliettino, Bruna Agrillo, Yolande T R Proroga, Marco Balestrieri, Lorena Gratino, Daniela Cristiano, Gianna Palmieri, and Aniello Anastasio. 2022. "An Active Peptide-Based Packaging System to Improve the Freshness and Safety of Fish Products : A Case Study."
- Andini, Pratiwi Pusphito. 2022. "Perlindungan Hukum Bagi Konsumen Muslim Terhadap Kehalalan Produk."
- Anggarkasih, Made Gayatri, and Prima Sukmana Resma. 2022. "The Importance of Halal Certification for the Processed Food by SMEs to Increase Export Opportunities." *E3S Web of Conferences* 348. <https://doi.org/10.1051/e3sconf/202234800039>.
- Aristriyana, Eky, And Rizki Ahmad Fauzi. 2022. "Analisis Penyebab Kecacatan Produk Dengan Metode Fishbone Diagram Dan Failure Mode Effect Analysis (Fmea) Pada Perusahaan Elang Mas Sindang Kasih Ciamis" 4 (2): 75–85.
- Arshad, Roslan, Che Abdullah Abu Bakar, and Zainal Abidin Ramli. 2018. "Capturing the Halal Food Market: Limitations of Halal Integrity within the

Supply Chain, the Malaysian Experience.” *American Journal of Economics* 8 (6): 272–78. <https://doi.org/10.5923/j.economics.20180806.06>.

Ashari, Reza Tanah. 2021. “Pengembangan Sistem Logistik Produk Halal Di Indonesia.” *Halal Research Journal* 1 (1): 8–19. <https://doi.org/10.12962/j22759970.v1i1.13>.

Ayvaz, Zayde, Zafer Ceylan, and Hande Doğruyol. 2019. “Color Assessment by Di Erent Techniques of Gilthead Seabream (Sparus Aurata) during Cold Storage” 2061 (3): 696–703.

Bland, John M., Karen L. Bett-Garber, Carissa H. Li, Suzanne S. Brashear, Jeanne M. Lea, and Peter J. Bechtel. 2018. “Comparison of Sensory and Instrumental Methods for the Analysis of Texture of Cooked Individually Quick Frozen and Fresh-Frozen Catfish Fillets.” *Food Science and Nutrition* 6 (6): 1692–1705. <https://doi.org/10.1002/fsn3.737>.

Brockington, Meghan, Dorothy Beale, Josephine Gaupholm, Angus Naylor, Tiff-
annie Kenny, M Lemire, Marianne Falardeau, Philip Loring, Jane Parmley,
and Matthew Little. 2023. “Identifying Barriers and Pathways Linking Fish
and Seafood to Food Security in Inuit Nunangat : A Scoping Review.”

Čapla, Jozef, Peter Zajác, Jozef Čurlej, Ľubomír Belej, Miroslav Kročko, Marek
Bobko, Lucia Benešová, Silvia Jakabová, And Tomáš Vlčko. 2020.
“Procedures For The Identification And Detection Of Adulteration Of Fish
And Meat Products Volume 14 Volume 14” 14 (September): 978–94.

Cardoso, Patrícia G., Odete Gonçalves, Maria F. Carvalho, Rodrigo Ozório, and
Paulo Vaz-Pires. 2021. “Seasonal Evaluation of Freshness Profile of
Commercially Important Fish Species.” *Foods* 10 (7).
<https://doi.org/10.3390/foods10071567>.

Ciampa, Alessandra, Luca Laghi, and Gianfranco Picone. 2022. “Validation of a 1
H-NMR Spectroscopy Quantitative Method to Quantify Trimethylamine
Content and K -Index Value in Different Species of Fish” 2022.

Deuraseh, Nurdeng. 2022. “Proceeding of 2nd Malikussaleh Internasional
Conference on Law , Legal Studies and Social Science (MICoLLS) 2022
Reconstruction of the Higher Objective of Islamic Law (Maqasid Shariah)
to Strengthen Halal Industry with Special Reference to Halal Envir,” 1–9.

Dr. Muhammad Tariq Khan, Associate Professor, and Assistant Profess ** Dr.
Tariq Iqbal Khan, Assistant Professor (Corresponding Author) ** Mr. Sheraz
Ahmed. 2020. 1 (4): 101–12.

Engelhart, Max D., and Henry Moughamian. 1968. “Book Reviews : Book
Reviews.” *Educational and Psychological Measurement* 28 (3): 951–951.
<https://doi.org/10.1177/001316446802800332>.

- Fachrudin, Fachri, Sujian Suretno, Muslim, Ade Kohar, and Agus Mailana. 2023. "The Construction of Islamic Law on the Law on Halal Product Assurance from the Maqashid Sharia Perspective (Law No. 33 of 2014 and Law No. 11 of 2020 Article 48)." *Al-Ulum* 23 (1): 175–91. <https://doi.org/10.30603/au.v23i1.3658>.
- Fageh, Achmad. 2022. "Building A Synergy Between The Halal Industry And The Green Industry In The Maqasid Syari'ah Review As The Basis Of Islamic Economics." *Journal of Islamic Economic Laws* 5 (1): 139–58. <https://doi.org/10.23917/jisel.v5i1.17034>.
- fania mutiara savitri, atika dyah perwita. 2020. "Mediating-Role-of-Halal-Technology-Implementation-on-Halal-4hodhpq1gv.Pdf."
- faridah durotun. 2019. "Sertifikasi Halal Di Indonesia : Sejarah , Perkembangan , Dan Implementasi Halal Certification in Indonesia ;" *Journal of Halal Product and Research*, 68–78.
- Febriyanni, Rani. 2022. "Perkembangan Logistik Halal Mempengaruhi Permintaan Akan Produk Halal . Banyak Negara Fokus Pada" 4 (1): 21–30.
- Ferri, Josipa. 2023. "Otoliths and Their Applications in Fishery Science." *Fishes* 8 (1): 89–102. <https://doi.org/10.3390/fishes8010035>.
- Fikri Azzahar, Khairiyah. 2025. "Sertifikasi Halal Dan Strategi Pemasaran Bagi Bisnis Produk Halal Di Indonesia." *J-EBI Jurnal Ekonomi Bisnis Islam* 4 (01): 58–73. <https://doi.org/10.57210/j-ebi4015>.
- Fisheries, F A O. 2020. *Food and Gear Loss From Selected Gillnet and Trammel*. Vol. 1204.
- Franceschelli, Leonardo, Annachiara Berardinelli, Sihem Dabbou, Luigi Ragni, and Marco Tartagni. 2021. "Sensing Technology for Fish Freshness and Safety: A Review." *Sensors (Switzerland)* 21 (4): 1–24. <https://doi.org/10.3390/s21041373>.
- Gagaoua, Mohammed. 2022. *Recent Advances in OMICs Technologies and Application for Ensuring Meat Quality, Safety and Authenticity*. *Foods*. Vol. 11. <https://doi.org/10.3390/foods11162532>.
- García, Míriam R., Jose Antonio Ferez-Rubio, and Carlos Vilas. 2022. "Assessment and Prediction of Fish Freshness Using Mathematical Modelling: A Review." *Foods* 11 (15): 1–26. <https://doi.org/10.3390/foods11152312>.
- Glaum, Paul, Valentin Cocco, and Fernanda S. Valdovinos. 2020. "Integrating Economic Dynamics into Ecological Networks: The Case of Fishery Sustainability." *Science Advances* 6 (45): 1–16. <https://doi.org/10.1126/SCIADV.AAZ4891>.

- Gunardi, Setiyawan. 2023. "The Role of Shari'ah Principles in Guaranteeing Halal Logistics: A Review." *Halalpsphere* 3 (1): 40–46. <https://doi.org/10.31436/hs.v3i1.36>.
- Gunardi, Setiyawan, Universiti Sains, Bandar Baru Nilai, and Negeri Sembilan. 2023. "International Islamic University Malaysia - INHART The Role Of," 40–46.
- Halkos, George. 2023. *Current Issues in Natural Resource and Environmental Economics*. *Current Issues in Natural Resource and Environmental Economics*. <https://doi.org/10.3390/books978-3-0365-6260-5>.
- Hamid, Abu Bakar Abdul, Mohamed Syazwan Ab Talib, and Nazliwati Mohamad. 2014. "Halal Logistics: A Marketing Mix Perspective." *Intellectual Discourse* 22 (2): 191–214.
- Hannan, Md Abdul, Kazi Ahsan Habib, A. M. Shahabuddin, Md Ariful Haque, and Mohammad Bodrul Munir. 2022. *Post-Harvest Processing, Packaging and Inspection of Frozen Shrimp: A Practical Guide*. *Post-Harvest Processing, Packaging and Inspection of Frozen Shrimp: A Practical Guide*. <https://doi.org/10.1007/978-981-19-1566-6>.
- Haryono, Haryono, and Dwi Iryaning Handayani. 2018. "Pemodelan Sistem Traceability Halal Supply Chain Dalam Menjaga Integritas Produk Makanan Halal Dengan Pendekatan Interpretive Structural Modeling (ISM)." *PROZIMA (Productivity, Optimization and Manufacturing System Engineering)* 2 (2): 70–79. <https://doi.org/10.21070/prozima.v2i2.2196>.
- Helal, Z E T, and Polimeraz Zincir Reaksiyonu. 2022. "Helal ve Helal Olmayan Gıda Bileşenlerinin Tespitinde Dna Tabanlı Analiz Yöntemlerinden Polimeraz Zincir Reaksiyonunun (Pzr) Kullanılması" 4 (2): 83–95. <https://doi.org/10.51973/head.1143789>.
- Hidayati, Juliza, Rini Vamelia, Jihaad Hammami, and Endri Endri. 2023. "Transparent Distribution System Design of Halal Beef Supply Chain." *Uncertain Supply Chain Management* 11 (1): 31–40. <https://doi.org/10.5267/j.uscm.2022.12.003>.
- Hilme, Syazwan Isnawi, and Raihana Mohd Raffi. 2024. "Maqasid Approach and Shariah Rules Towards Halal Industry" 2 (2): 1–14.
- Hüssy, Karin, Michele Casini, Stephanie Haase, Annelie Hilvarsson, Jan Horbowy, Maria Krüger-Johnsen, Uwe Krumme, et al. 2020. *Tagging Baltic Cod – TABACOD. Eastern Baltic Cod: Solving the Ageing and Stock Assessment Problems with Combined State-of-the-Art Tagging Methods*.
- Ibrahim, Saber, Hager Fahmy, and Shimaa Salah. 2021. "Application of Interactive and Intelligent Packaging for Fresh Fish Shelf-Life Monitoring" 8 (June): 1–8. <https://doi.org/10.3389/fnut.2021.677884>.

- Ida, Takanori. 2003. "On the Coevolution of the Product Quality and the Consumer Preferences On the Coevolution of the Product Quality and the Consumer Preferences."
- Ilyas Masudin, Faradilla Witha Fernanda, Fien Zulfikarijah, and Dian Palupi Restuputri. 2021. "Customer Loyalty on Halal Meat Product: A Case Study of Indonesian Logistics Performance Perspective." *International Journal of Business and Society* 21 (1): 433–53. <https://doi.org/10.33736/ijbs.3262.2020>.
- Ingsih, Ita, M. Arifin, and Achmad Wicaksono. 2018. "North Jamrud Terminal Warehouse Performance by The Effect of Halal Logistics Issue." *Civil and Environmental Science* 001 (02): 041–051. <https://doi.org/10.21776/ub.civense.2018.00102.1>.
- Iqbal, M. 2019. "Maq Ås Id Syariah Sebagai Dasar Paradigma Ekonomi Islam M. Iqbal," No. 64, 47–58.
- Irma Dwiputranti, Made. 2020. "Pengembangan Model Bisnis Halal Logistik Transportasi Berbasiskan Business Model Canvass (BMC)." *Competitive* 15 (2): 115–28. <https://doi.org/10.36618/competitive.v15i2.917>.
- Islam, Muhaiminul, Tajmahal Road, Sultana Naisra, and Sarker Towfiq Pritom. 2016. "Application of Fishbone Analysis for Evaluating Supply Chain and Business Process- A Case Study on KMART" 6 (7): 36–42.
- Jesús, Alejandro De, Cortés Sánchez, Martha Lorena Guzmán, and Rodolfo Garza-torres. 2019. "Turkish Journal of Agriculture - Food Science and Technology Food Safety , Fish and Listeriosis" 7 (11): 1908–16.
- Jitesh Solanki, Hitenrakumar Parmar, Anirudhsihn Parmar, Ejaz Parmar And Milan Masani. 2016. "Ijppht Freshness Evaluation Of Fish By Quality Index Method (Qim) And Instrumental Method At Veraval Fish Landing Centre" 7 (1): 15740. <https://doi.org/10.15740/Has/Ijppht/7.1/42-46>.
- Journal, Potravinarstvo Slovak, Food Sciences, Potravinarstvo Slovak Journal, And Food Sciences. 2021. "Microbiological , Chemical And Organoleptic Evaluation Of Fresh Fish And Its Products Irradiated By Gamma Rays Amal Nasser Al-Kuraieef Volume 15 Potravinarstvo Slovak Journal Of Food Sciences Organoleptic Tests Irradiation Process Microbiological Tests Volume 15" 15 (November 2020): 95–100.
- Juma, Fredrick, Wilson Munala, and M Harikrishnan. 2023. "Quality and Safety Concerns of Farmed Tilapia Fish during Freezing and Frozen Storage: Review" 22 (6): 40–58. <https://doi.org/10.9734/AFSJ/2023/v22i6641>.
- Kalista, Ayu, Amin Redjo, and Umi Rosidah. 2019. "Aplication of Image Processing to Determine The Freshness of Tilapia Fish (Oreochromis Niloticus)." *Jurnal Pengolahan Hasil Perikanan Indonesia* 22 (2): 229–35.

<https://doi.org/10.17844/jphpi.v22i2.27364>.

Kamarulzaman, Nitty Hirawaty, and Hazwani Ahmad Tarmizi. 2020. "Inbound Halal Logistics Practices: A Case of Local Mosques." *Journal of Halal Industry & Services* 3 (1). <https://doi.org/10.36877/jhis.a0000167>.

Kashani Zadeh, Hossein, Mike Hardy, Mitchell Sueker, Yicong Li, Angelis Tzouchas, Nicholas MacKinnon, Gregory Bearman, et al. 2023. "Rapid Assessment of Fish Freshness for Multiple Supply-Chain Nodes Using Multi-Mode Spectroscopy and Fusion-Based Artificial Intelligence." *Sensors* 23 (11). <https://doi.org/10.3390/s23115149>.

Khan, Shahbaz, Abid Haleem, and Mohd Imran Khan. 2023. "Risk Assessment Model for Halal Supply Chain Using an Integrated Approach of IFN and D Number." *Arab Gulf Journal of Scientific Research* 41 (3): 338–58. <https://doi.org/10.1108/AGJSR-09-2022-0160>.

———. 2024. "A Risk Assessment Framework Using Neutrosophic Theory for the Halal Supply Chain under an Uncertain Environment." *Arab Gulf Journal of Scientific Research* 42 (3): 852–70. <https://doi.org/10.1108/AGJSR-12-2022-0312>.

Krisharyanto, Edi, Endang Retnowati, and Noor Tri Hastuti. 2019. "Regulation and Provisions for Supervision of Halal Products in Indonesia." *Journal of Legal, Ethical and Regulatory Issues* 22 (1): 1–10.

Kusnadi, Adhi, Yandra Arkeman, Khaswar Syamsu, and Sony Hartono Wijaya. 2023. "Designing Halal Product Traceability System Using UML and Integration of Blockchain with ERP." *Register: Jurnal Ilmiah Teknologi Sistem Informasi* 9 (1): 29–41. <https://doi.org/10.26594/register.v9i1.3045>.

Lady Cindy Soewarlan , Lachmuddin Sya'rani, Azis Nur Bambang. 2005. "Study Of Quality Control System Of Fresh Fish And Shrimp At The Place Of Fish Auction , Of The Ocean Fishing Port In Cilacap Pdf Created With Pdffactory Pro Trial Version Www.Pdffactory.Com Pdf Created With Pdffactory"

Laksana, Andri Jaya, Young Min Choi, Jong Hoon Kim, Byeong Sam Kim, and Ji Young Kim. 2022. "Real-Time Monitoring the Effects of Storage Conditions on Volatile Compounds and Quality Indexes of Halal-Certified Kimchi during Distribution Using Electronic Nose." *Foods* 11 (15). <https://doi.org/10.3390/foods11152323>.

Law, In Islamic. 2015. "Perlindungan Konsumen Dalam Perspektif Hukum Islam Dan Undang-Undang Nomor 8 Tahun 1999 Consumer Protection In The Perspective Of Islamic Law," No. 8.

Li, Bo, and Zun Liu. 2022. "Measurement and Evolution of High-Quality Development Level of Marine Fishery in China." *Chinese Geographical Science* 32 (2): 251–67. <https://doi.org/10.1007/s11769-022-1263-7>.

- Lupu, Mariana, Valentin Nedeff, Mirela Panainte, and Dragoş-Ioan Rusu. 2022. "Techniques and Methods for Measuring the Texture of Processed and Fresh Agro-Food Products – A Review." *Buletinul Institutului Politehnic Din Iaşi. Secția Matematica. Mecanică Teoretică. Fizică* 68 (4): 7–28. <https://doi.org/10.2478/bipmf-2022-0016>.
- Mahbubi, Akhmad, Pita Merdeka, and Hidayatullah Jakarta. 2016. "Dynamic System Of Indonesian Halal Meat Industry: Sustainable Supply Chain Management Perspective."
- Malaikhah, Fitriatul, Heti Mulyati, Eko Ruddy Cahyadi, and Suhaimi Ab Rahman. 2021. "Creating Strategies for Implementing Halal Logistics In." <https://doi.org/10.4108/eai.14-9-2020.2304463>.
- Masudin, I., F. W. Fernanda, F. Jie, H. Djajadikerta, and Widayat. 2018. "Muslim and Non-Muslim Perceptions on Halal Meat Logistics (HML)." *IOP Conference Series: Materials Science and Engineering* 403 (1). <https://doi.org/10.1088/1757-899X/403/1/012054>.
- Masudin, Ilyas, Bima Bagos Rahmatullah, Muhammad Armand Agung, Inka Amalia Dewanti, and Dian Palupi Restuputri. 2022. "Traceability System in Halal Procurement: A Bibliometric Review." *Logistics* 6 (4). <https://doi.org/10.3390/logistics6040067>.
- Menteri Hukum dan Hak Asasi Manusia. 2014. "UU No.33 Tahun 2014 (2014)." *UU No.33 Tahun 2014*, no. 1.
- Miranda Sari, Titania, and Dini W. 2023. "Risk Assessment and Mitigation Strategy in The Halal Broiler Supply Chain." *Jurnal Riset Ilmu Teknik* 1 (1): 13–24. <https://doi.org/10.59976/jurit.v1i1.5>.
- Morisasa, Mizuki, Keisuke Kimura, Motoki Sumida, Saya Fukumoto, Tadashi Tamura, Riko Takeuchi, Tsukasa Mori, and Naoko Goto-Inoue. 2020. "Application of Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry Imaging for Evaluating the Quality of Fish Fillets." *Foods* 9 (4). <https://doi.org/10.3390/foods9040402>.
- Mortas, Mustafa, Nour Awad, and Huseyin Ayvaz. 2022. "Adulteration Detection Technologies Used for Halal / Kosher Food Products: An Overview." *Discover Food*. <https://doi.org/10.1007/s44187-022-00015-7>.
- Mu'ti sazali, Abdul, and Jeanne Svensky Ligte. 2019. "The Importance of Halal Logistics Implementation in Indonesia in Compliance with Domestic and Global Halal Market Requirements." *Jurnal Transportasi Multimoda* 17 (2): 17–25. <https://doi.org/10.25104/mtm.v17i2.1319>.
- Mui, Fatwa. 2014. "Undang-Undang Republik Indonesia Nomor 33 Tahun 2014 Tentang Jaminan Produk Halal," No. 1.

- Murnawan, Heri. 2014. "Evaluasi Produktivitas Dengan Metode Fishbone Di Perusahaan Percetakan Kemasan Pt . X Latar Belakang Masalah" 11 (1): 27–46.
- Murray, Shauna. 2023. *Marine Toxins from Harmful Algae and Seafood Safety*. *Marine Toxins from Harmful Algae and Seafood Safety*. <https://doi.org/10.3390/books978-3-0365-6193-6>.
- Naskhila, Amel Salda, and Toto Tohir Suriatmaja. n.d. "Perlindungan Konsumen Terhadap Produk Halal Dalam Memenuhi Kenyamanan Dan Keselamatan Dihubungkan Dengan Undang-Undang Jaminan Produk Halal (UU JPH)."
- Noordin, W A N Norhana, Saadiah Ibrahim, A Roslina, Mutiara D W I Sari, and Nurul Huda. 2019. "Current Research in Nutrition and Food Science Nutritional Composition , Sensory Evaluation and Halal Perspective African Catfish (*Clarias Gariepinus*) Fed with Diets Containing Najasa (Impurities)" 07 (2).
- Nurdiana, Lis. 2025. "Analisis Peluang Dan Ancaman Perdagangan Produk Perikanan Dan Kebijakan Untuk Mengatasinya : Studi Kasus Indonesia Dengan Malaysia" 01 (04): 1262–68.
- Patro, Pratyush Kumar, Raja Jayaraman, Khaled Salah, and Ibrar Yaqoob. 2022. "Blockchain-Based Traceability for the Fishery Supply Chain." *IEEE Access* PP:1. <https://doi.org/10.1109/ACCESS.2022.3196162>.
- Perdana, Yandra Rahadian. 2020. "Halal Product Review Based on Total Quality Management and a Supply Chain Management Perspective." *Journal of Industrial Engineering and Halal Industries* 1 (1): 78–86. <https://doi.org/10.14421/jieh1877>.
- Putri, Melinda Anggita, Cheryll Chameloza, and Rista Anggriani. 2021. "Analisis Pengendalian Kualitas Produk Pengalengan Ikan Dengan Metode Statistical Quality Control (Studi Kasus: Pada CV. Pasific Harvest)." *Food Technology and Halal Science Journal* 4 (2): 109–23. <https://doi.org/10.22219/ftsh.v4i2.15603>.
- Qotadah, Hudzaifah Achmad. 2020. "Covid-19: Tinjauan Maqasid Al-Shariah Terhadap Penangguhan Pelaksanaan Ibadah Shalat Di Tempat Ibadah (Hifdz Al-Nafs Lebih Utama Dari Hifdz Al-Din?)." *Salam: Jurnal Sosial Dan Budaya Syar-I* 7 (7). <https://doi.org/10.15408/sjsbs.v7i7.15676>.
- Qurtubi, and Elisa Kusri. 2018. "Research in Halal Logistics and Halal Supply Chain: Issue and Area Development." *MATEC Web of Conferences* 154:2–5. <https://doi.org/10.1051/matecconf/201815401096>.
- Rathod, Nikheel Bhojraj, Nilesh Prakash Nirmal, Asif Pagarkar, and Fatih Özogul. 2022. "Antimicrobial Impacts of Microbial Metabolites on the Preservation of Fish and Fishery Products: A Review with Current

Knowledge.”

- Rodriguez, Alicia, Liliana Maier, and Perfecto Paseiro-Losada. 2016. “Changes in Sensory and Physical Parameters in Chill- Stored Farmed Coho Salmon (*Oncorhynchus Kisutch*).”
- Roobab, Ume, Liliana G Fidalgo, Abdul Waheed Khan, Xin-an Zeng, Zahra Batool, and Rana Muhammad Aadil. 2022. “High-Pressure Processing of Fish and Shellfish Products : Safety , Quality , and Research Prospects.” <https://doi.org/10.1111/1541-4337.12977>.
- Roslan, Nuur Fathin, Fauziah Abdul Rahman, Faradina Ahmad, and Noor Irdiana. 2016. “Halal Logistics Certificate in Malaysia : Challenges and Practices” 5 (3): 142–46.
- Ruangsiroj, Thapanee, and Adisak Suvittawat. 2022. “The Factors Influencing Value Creation of Halal Logistics Service during Crisis: A Case Study of Halal Logistics Service Providers in Thailand.” *Asian Journal of Business Research* 12 (2): 28–47. <https://doi.org/10.14707/ajbr.220126>.
- S Soesilowati, Endang. 2018. “Business Opportunities for Halal Products in the Global Market: Muslim Consumer Behaviour and Halal Food Consumption.” *Journal of Indonesian Social Sciences and Humanities* 3 (1): 151–60. <https://doi.org/10.14203/jissh.v3i1.50>.
- Sampantamit, Tiptiwa, Long Ho, Wout Van Echelpoel, Carl Lachat, and Peter Goethals. 2020. “Links and Trade-Offs between Fisheries and Environmental Protection in Relation to the Sustainable Development Goals in Thailand.” *Water (Switzerland)* 12 (2). <https://doi.org/10.3390/w12020399>.
- Septiningtyas, Sisilia, E K O Priyanto, and S R I Tjondro Winarno. 2015. “Kabupaten Sidoarjo Jawa Timur Analysis Of Principle Conformity Of Iso 9001 : 2015 Quality Management System In The Product Processing Section At Cv . Fish Boster Centre , Sidoarjo District , East Java Fakultas Pertanian , Universitas Pembangunan Nasional ,” 1122–36.
- Sham, Rohana, Raja Zuraidah Rasi, Noranita Abdamia, Suhana Mohamed, and T. K.M. Thahira Bibi. 2017. “Halal Logistics Implementation in Malaysia: A Practical View.” *IOP Conference Series: Materials Science and Engineering* 226 (1). <https://doi.org/10.1088/1757-899X/226/1/012040>.
- Sholihah, Hani. 2020. “Islamic Business Ethics in the Maqasid Al-Shari’ah Perspective.” *Amwaluna: Jurnal Ekonomi Dan Keuangan Syariah* 4 (2): 324–35.
- Stuppy, Anika. 2018. *Essays on Product Quality*.
- Suaidi Suaidi. 2023. “Menakar Sistem Jual Beli Ikan Gelondongan Dalam Pandangan Hukum Islam.” *Al Yazidiy Jurnal Sosial Humaniora Dan*

Pendidikan 5 (1): 86–96. <https://doi.org/10.55606/ay.v5i1.282>.

Suastrini, Fatana. 2023. “Manajemen Logistik Halal.” *Nusantara Hasana Journal* 2 (9): 260–68. <https://doi.org/10.59003/nhj.v2i9.838>.

Suhairi, Suhairi, Ardhia Prameswari, Dindy Rizka Octavia, and Luthfiah Nur Bayani. 2023. “Kunci Pelaksanaan Kegiatan Logistik Halal Di Indonesia Dalam Praktik Logistik Global.” *Widya Balina* 8 (1): 568–76. <https://doi.org/10.53958/wb.v8i1.172>.

Sulistiani, Siska Lis. 2019. “Analisis Maqashid Syariah Dalam Pengembangan Hukum Industri Halal Di Indonesia.” *Law and Justice* 3 (2): 91–97. <https://doi.org/10.23917/laj.v3i2.7223>.

Suretno, Sujian, Ade Kohar, and Agus Mailana. 2023. “The Construction of Islamic Law on the Law on Halal Product Assurance from the Maqashid Sharia Perspective Kontruksi Hukum Islam Pada Undang-Undang Jaminan Produk Halal Perspektif Maqashid Syariah” 23 (1): 175–91. <https://doi.org/10.32528/AT.V2I2.5424.2>.

Syahputra, Afrizal El Adzim, Nur Faizin, Abduloh Safik, and Abul Ma’ali. 2023. “Mengkonsumsi Makanan Halal Perspektif Al- Qur ’ an :” 7 (2021): 37–48. <https://doi.org/10.29240/alquds.v7i1.5510>.

Syanya, Fredrick Juma, Wilson Munala Mathia, and M. Harikrishnan. 2023. “Quality and Safety Concerns of Farmed Tilapia Fish during Freezing and Frozen Storage: Review.” *Asian Food Science Journal* 22 (6): 40–58. <https://doi.org/10.9734/afsj/2023/v22i6641>.

Tavares, Jéssica, Ana Martins, Liliana G. Fidalgo, Vasco Lima, Renata A. Amaral, Carlos A. Pinto, Ana M. Silva, and Jorge A. Saraiva. 2021. “Fresh Fish Degradation and Advances in Preservation Using Physical Emerging Technologies.” *Foods* 10 (4): 1–20. <https://doi.org/10.3390/foods10040780>.

Teklemariam, Addisu Demeke, Fekade Tessema, and Takele Abayneh. 2015. “Review on Evaluation of Safety of Fish and Fish Products.” ~ 111 ~ *International Journal of Fisheries and Aquatic Studies* 3 (2): 111–17.

Ulega, Abdallah, Yunus Mgaya, Razack Lokina, and Reguli Mushy. 2023. “The Contribution of Marine Fisheries to Socio-Economic Development in Tanzania Mainland: Reflections on the Blue Economy Concept from Selected Coastal Villages.” *Journal of the Geographical Association of Tanzania* 42 (2): 1–22. <https://doi.org/10.56279/jgat.v42i2.229>.

Vuoso, Valeria, Marta Gogliettino, Marika Di Paolo, Bruna Agrillo, Luisa Ambrosio, Aniello Anastasio, and Gianna Palmieri. 2022. “During Refrigerated Storage m Er Ci Al Us e Om on On” 11:171–76. <https://doi.org/10.4081/ijfs.2022.10466>.

- Wahyuni, Hana Catur, and Wiwik Sumarmi. 2018. "Pengukuran Risiko Keamanan Pangan Pada Sistem Rantai Pasok Ikan Segar" 13 (250): 37–44.
- Walayat, Noman, Wei Tang, Xinping Wang, Minghua Yi, Li Guo, Yuting Ding, Jianhua Liu, Ishtiaq Ahmad, and Muhammad M.A.N. Ranjha. 2023. "Quality Evaluation of Frozen and Chilled Fish: A Review." *EFood* 4 (1). <https://doi.org/10.1002/efd2.67>.
- Wholesalers, Malaysian. 2022. "FISH HALALNESS LOGISTIC : A FRAMEWORK OF." <https://doi.org/10.15405/epfe.23081.42>.
- Wijaya, Dedy Rahman, Nailatul Fadhilah Syarwan, Muhammad Agus Nugraha, Dahliar Ananda, Tora Fahrudin, and Rini Handayani. 2023. "Seafood Quality Detection Using Electronic Nose and Machine Learning Algorithms With Hyperparameter Optimization." *IEEE Access* 11 (June): 62484–95. <https://doi.org/10.1109/ACCESS.2023.3286980>.
- Yankovskaya, V. S., N. I. Dunchenko, E. S. Voloshina, S. V. Kuptsova, O. B. Fedotova, and K. V. Mikhaylova. 2021. "Improving the Quality of Functional Fish Products Based on Management and Qualimetry Methods." *IOP Conference Series: Earth and Environmental Science* 640 (6). <https://doi.org/10.1088/1755-1315/640/6/062001>.
- Yasmin, Rumana, Correspondence Rumana Yasmin, and Mehady Islam. 2017. "Sustainability of Fisheries and Aquaculture in Context of Emerging Climate Change Issues." *International Journal of Fisheries and Aquatic Studies* 5 (4): 176–87.
- Yuniar, Nur Fajriati, and Inge Handriani. 2020. "Sistem Customer Relationship Management Untuk Perusahaan Penjualan Alat Komputer Menggunakan Analisis Fishbone Customer Relationship Management System for Computer Equipment Sales Company Using Fishbone Analysis" 9 (November): 129–37. <https://doi.org/10.34148/teknika.v9i2.292>.
- Ziegler, Yvonne, Vincenzo Uli, and Mahmoud Tatari. 2022. "Implementing Halal Logistics in a Non-Muslim-Dominant Environment: A Proposal for Reengineering the Business Processes in Two Stages." *Business Process Management Journal* 28 (8): 48–65. <https://doi.org/10.1108/BPMJ-12-2020-0593>.
- <https://Langgam.Id/Kecamatan-Linggo-Sari-Baganti-Kabupaten-Pesisir-Selatan/>
- <https://Pesisirselatankab.Go.Id/Rberita/Detail/Nelayan-Pessel-Baru-Mampu-Produksi-Ikan-137-Ribu-Ton-Per-Tahun>