

FROM DELTA TO GLOBAL MARKETS: DECIPHERING ELEMENTS FUELING MEKONG'S SEAFOOD EXPORT SECTOR

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ABSTRACT

This study delved into the factors that contributed to the seafood export industry in the Mekong Delta region. A comprehensive analysis was conducted on vital factors, encompassing geographical advantage, government policies and support, natural resources and aquatic ecosystems, quality assurance and food safety standards, and technological advancements and innovation. Qualitative research methods, surveys and document reviews, were employed to accomplish the research objectives. In the qualitative phase, in-depth interviews were carried out with 12 industry experts to gain insights into the driving forces of the seafood export industry. To quantify the influence of these factors, Structural Equation Modeling (SEM) and Partial Least Squares (PLS) were utilized, with participation from 275 industry stakeholders. The findings demonstrated strong and significant connections between these factors and the success of the seafood export industry, underscoring their crucial role in driving growth and sustainability. The implications of these findings for practitioners and policymakers were discussed, emphasizing the need to harness these factors to enhance the industry's competitiveness and encourage sustainable practices. In conclusion, this research contributes to an enhanced understanding of the seafood export industry in the Mekong Delta region, providing invaluable insights for industry stakeholders to make well-informed decisions and foster its growth.

Keywords: Mekong Delta Region, Partial Least Squares (PLS) SEM, Performance and Competitiveness, Seafood Export Industry, Sustainability Development.

JEL Classification Code: F63, M16, O19, P45, Q22

INTRODUCTION

Situated in Southeast Asia, the Mekong Delta region stands as a vibrant hub for seafood export, driven by its extensive coastlines and rich aquatic resources, propelling it to the forefront of the global seafood market (Phillips, 2021). This sector plays a crucial role in the region's economy, generating employment, foreign exchange, and regional advancement (USAID, 2023). To bolster its export dominance, understanding the foundational factors driving the success of seafood enterprises is important.

This study investigates intricate drivers that contribute to the export prowess of the Mekong Delta's seafood industry, offering insights crucial for enhancing its growth and competitive edge. The findings will serve as a foundation for policymakers, industry stakeholders, and seafood entities to devise informed strategies, ultimately bolstering both export performance and the sector's sustainability.

By navigating the existing literature, this research identifies critical dimensions inherent in the Mekong Delta's seafood export sector. It delves into the complexities of small-scale operations, value chain intricacies, market diversification, policy frameworks, institutional dynamics, sustainability practices, consumer preferences, and technological advancements. This study enriches current knowledge by addressing gaps in current research highlighting these pivotal factors, and providing actionable insights for seafood industry stakeholders.

Ultimately, this research seeks to lay the groundwork for effective policies, potent strategies, and strategic interventions. The harmonious implementation of these measures seeks to strengthen the export footing of seafood enterprises in the Mekong Delta. An in-depth understanding of success-fostering factors can empower the region to utilize its aquatic resources more astutely, enhance market access, and cultivate sustainable advancement.

The Mekong Delta's significant role in the global seafood export stage, nestled within Vietnam, is evident through its substantial contributions. Positioned favorably and abundant in water resources and aquatic ecosystems, it has become a bustling hub for seafood production and trade. Serving as a cornerstone of the region's economy, it creates jobs, drives foreign exchange, and contributes to overall growth (WB, 2019).

Despite the importance of the Mekong Delta's seafood export industry, understanding its origins and sustenance is crucial. Analyzing these factors unveils the current and potential challenges steering seafood enterprises within the region. This comprehensive insight equips policymakers, industry leaders, and researchers to design effective strategies and policies, further enhancing the sector's development and elevation.

Navigating international markets, ensuring competitiveness, enhancing infrastructure, embracing eco-sensitive practices, adhering to quality standards, and leveraging innovation to elevate productivity are all key challenges of the seafood export industry. Confronting these complexities aligns with ecological and socio-economic equilibrium, nurturing an industry that is both strategic and ethically responsible. By addressing these intricacies, the Mekong Delta's seafood export industry can evolve into a model of conscientious economic progress, benefiting local communities and advancing the region.

The research objectives encompass a holistic exploration, evaluating export performance and competitiveness, uncovering pivotal drivers of seafood entities' export position, and crafting strategic blueprints for enhanced competitiveness and sustainability in the Mekong Delta's seafood export domain. Accomplishing these objectives will disseminate invaluable insights, guiding the growth and lasting viability of the region's seafood export industry.

LITERATURE REVIEW

The literature review examines the factors contributing to geographical advantage, government policies and support, natural resources and aquatic ecosystems, quality assurance and food safety standards, and technological advancements and innovation, based on the available data.

The geographical advantage is vital for industry competitiveness, as proximity to markets, efficient transportation infrastructure, and a favorable climate are essential in benefiting Mekong Delta's seafood export (Binh, 2020; Joffre et al., 2020). This proximity reduces costs and ensures timely deliveries, enhancing competitiveness. Developed transportation networks improve connectivity, aiding efficient goods movement (Long et al., 2022). Abundant resources offer a competitive edge, while a favorable environment supports various industries. Additionally, strategic positioning about regions and trade agreements attracts trade, investment, and business opportunities (An et al., 2019).

Government policies and support are pivotal for the growth and sustainability of the seafood export industry (Joffre et al., 2018). In the Mekong Delta, policies encouraging investment, providing financial incentives, and facilitating trade agreements create a conducive business environment. Export promotion programs, regulatory frameworks, and infrastructure development initiatives contribute to the success of local seafood enterprises. Essential policy components encompass clear regulations, financial aid, improved market access, research funding, and workforce skill development (Ababouch et al., 2023). These factors collectively shape a supportive ecosystem for the seafood export sector's advancement.

Natural resources and aquatic ecosystems are pivotal for the seafood export industry (Khanh Nguyen et al., 2019). Rich marine resources like fish stocks and shrimp underpin production. Sustainable practices and biodiversity conservation ensure industry longevity (Troell et al., 2023). The key factors include Biodiversity conservation: Sustaining species diversity to maintain ecosystem health; Water quality: Pollution control maintains clean water sources; Sustainable fishing: Limits and responsible techniques to prevent overfishing; Ecosystem restoration: Protecting habitats enhances ecosystem integrity; Climate adaptation: Addressing climate impacts safeguards resources and ecosystems.

Quality assurance and food safety are essential for seafood export competitiveness (Nguyen & Jolly, 2020). Adhering to global standards, certifications, and control measures ensures compliance with importing nations' strict criteria. Robust quality systems, traceability, and proper handling maintain product quality and consumer trust (Overbosch & Blanchard, 2023). Key factors include Good Manufacturing Practices (GMP), Hazard Analysis and Critical Control Points (HACCP), quality control and testing, traceability and labeling, and worker training and education. These elements collectively ensure a strong foundation for safe and high-quality seafood exports.

Technological innovations drive the seafood export sector, enhancing efficiency, quality, and market reach (Ababouch et al., 2023). Advanced methods like streamlined processing, IoT-enabled traceability, and sustainable aquaculture practices improve competitiveness (Liang & Shah, 2023). Key aspects include Automation and Robotics for precise sorting and packaging; IoT-enabled Traceability for transparency and consumer trust (Dung & Long, 2023); Sustainable Aquaculture Techniques like Recirculating Aquaculture Systems (RAS) and Integrated Multi-Trophic Aquaculture (IMTA) (Macro Gioacchino, 2018); Smart Packaging for freshness; and Value-Added Processing for diverse products. These innovations boost productivity, quality, sustainability, and consumer satisfaction, reshaping the seafood industry for success.

Understanding and leveraging these factors, Mekong Delta's seafood enterprises can enhance export positions for lasting success. Further research should explore interrelationships and dynamics, benefiting policymakers, stakeholders, and researchers. This review emphasizes geographical advantage, government support, resources, quality assurance, and innovation's importance. By recognizing and capitalizing on these factors, stakeholders can drive sustainable growth and competitiveness in the seafood export industry.

Literature Gaps

There are several literature gaps in the existing research on the factors contributing to the export position of seafood enterprises in the Mekong Delta region. These gaps include the need for an integrated framework that examines the combined influence of geographical advantage, government policies and support, natural resources and aquatic ecosystems, quality assurance and food safety standards, and technological advancements and innovation on the seafood export industry in the Mekong Delta. Additionally, there is a lack of comprehensive perspectives from various stakeholders, limited focus on sustainability and resilience, insufficient exploration of trade barriers and market access, and a need for more in-depth analysis of innovation and value addition. Addressing these gaps would provide a more comprehensive understanding of the seafood export industry and guide future strategies and policies for its sustainable growth and competitiveness.

METHODOLOGY AND RESEARCH MODEL

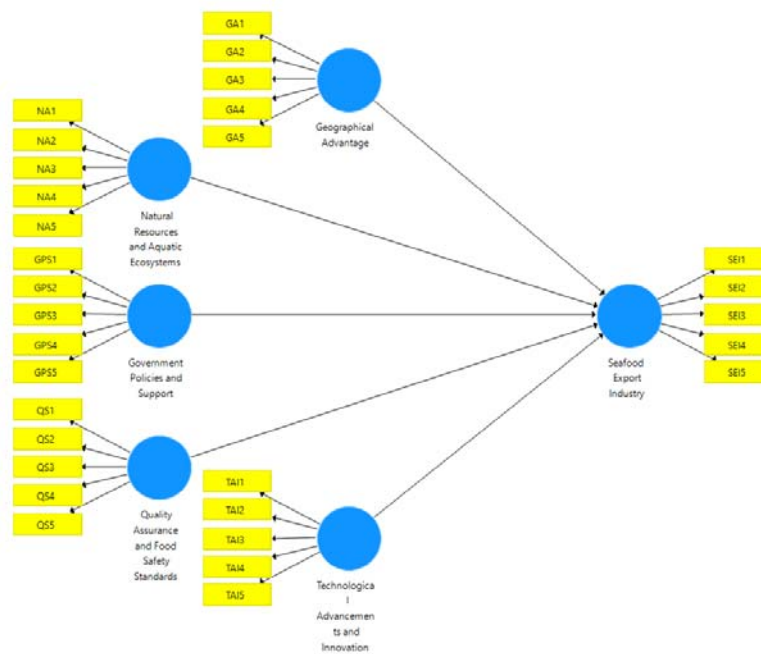


Figure 1. Theoretical Framework

In a quantitative research framework, this study utilized a Likert-scale survey involving 275 participants, notably from the seafood export industry. The primary objective was to examine the intricate relationships among variable factors shaping the Mekong Delta region's seafood export landscape. Smart-PLS 3.0 was employed for comprehensive analysis, encompassing correlation assessment, construct quality measurement, discriminant validity testing, and path coefficient exploration. The study aimed to unravel connections between dependent and independent variables, enhancing comprehension of the seafood export industry's nuances in the Mekong Delta. Through this multifaceted approach, the research aimed to shed light on this crucial sector, contributing to a deeper understanding of seafood exports in the region.

Five hypotheses have been developed for this research:

- H1: There is a significant positive relationship between geographical advantage, and the seafood export industry in the Mekong Delta.
- H2: There is a significant positive relationship between natural resources and aquatic ecosystems, and the seafood export industry in the Mekong Delta.

- H3: There is a significant positive relationship between government policies and support, and the seafood export industry in the Mekong Delta.
- H4: There is a significant positive relationship between quality assurance and food safety standards, and the seafood export industry in the Mekong Delta.
- H5: There is a significant positive relationship between technological advancements and innovation, and the seafood export industry in the Mekong Delta.

RESULTS AND DISCUSSION

Demographic Profile

The demographic profile of the study participants (N=275) is comprised of individuals from various categories. In terms of organizations, a significant portion (68%) belongs to local organizations, followed by state-owned organizations (26%), and joint ventures (30%). Within the industry segment, the majority (100%) of participants are from the manufacturing sector, while a notable percentage (21%) represents the service industry, and a smaller group (4%) includes policymakers. As for positions held, the participants consisted of state officers (7%), enterprise managers (89%), and researchers (6%). This diverse demographic composition offers insights into the spectrum of participants' affiliations, industries, and roles, contributing to a well-rounded understanding of the sample.

Table 1. Demographic Profile

No.	Category		Frequency (N=275)	Percent (%)
1	Organization	Local	150	68%
		State-owned	58	26%
		Joint venture	67	30%
2	Industry	Manufacturing	220	100%
		Service	47	21%
		Policy maker	8	4%
3	Position	State officer	16	7%
		Enterprise manager	245	111%
		Researcher	14	6%

Construct Quality Measurement

Table 2 presents the results of a construct analysis related to the factors influencing the seafood export industry in a particular study. The Construct Quality Measurement phase rigorously assessed constructs within the research framework. Geographical Advantage (GA) items (GA1-GA5) had outer loadings (0.790 to 0.882), demonstrating high internal consistency ($\alpha=0.876$, CR=0.910). Government Policies and Support (GPS) items (GPS1-GPS5) had outer loadings (0.712 to 0.830), showing satisfactory internal consistency ($\alpha=0.851$, CR=0.894). Natural Resources and Aquatic Ecosystems (NA) items (NA1-NA5) had outer loadings (0.780 to 0.872), with robust internal consistency ($\alpha=0.887$, CR=0.917). Quality Assurance and Food Safety Standards (QS) items (QS1-QS5) had commendable outer loadings (0.794 to 0.891), displaying strong internal consistency ($\alpha=0.898$, CR=0.925). Dependent Variable, Seafood Export Industry (SEI) items (SEI1-SEI5) had outer loadings (0.764 to 0.863), demonstrating robust internal consistency ($\alpha=0.881$, CR=0.913). Technological Advancements and Innovation (TAI) items (TAI1-TAI5) had outer loadings (0.783 to 0.881), exhibiting high internal consistency ($\alpha=0.891$, CR=0.920). This phase affirmed construct reliability and validity, forming a robust basis for ensuing analyses and interpretations in the study.

Table 2. Construct Quality Measurement

No.	Construct	Item	Mean	Outer Loadings	Cronbach's Alpha	Composite Reliability
IV1	Geographical Advantage	GA1	4.0	0.825	0.876	0.910
		GA2	3.5	0.795		
		GA3	3.6	0.790		
		GA4	3.6	0.792		
		GA5	3.7	0.882		
IV3	Government Policies and Support	GPS1	3.0	0.830	0.851	0.894
		GPS2	3.1	0.805		
		GPS3	3.1	0.789		
		GPS4	3.2	0.712		
		GPS5	3.1	0.821		
IV2	Natural Resources and Aquatic Ecosystems	NA1	3.2	0.809	0.887	0.917
		NA2	3.6	0.780		
		NA3	3.4	0.872		
		NA4	3.2	0.836		
		NA5	3.3	0.853		
IV4	Quality Assurance and Food Safety Standards	QS1	3.8	0.835	0.898	0.925
		QS2	3.7	0.891		
		QS3	3.5	0.794		
		QS4	3.5	0.837		
		QS5	3.6	0.855		
DV	Seafood Export Industry	SEI1	3.4	0.810	0.881	0.913
		SEI2	3.1	0.832		
		SEI3	3.2	0.764		
		SEI4	3.2	0.846		
		SEI5	3.2	0.863		
IV5	Technological Advancements and Innovation	TAI1	3.2	0.791	0.891	0.920
		TAI2	3.6	0.881		
		TAI3	3.6	0.835		
		TAI4	3.1	0.783		
		TAI5	3.4	0.879		

Convergent and Discriminant Validity

Table 3. Convergent and Discriminant Validity

Construct	AVE	(1)	(2)	(3)	(4)	(5)	(6)
Geographical Advantage (1)	0.669						
Government Policies and Support (2)	0.628	0.129					
Natural Resources and Aquatic Ecosystems (3)	0.690	0.401	0.243				
Quality Assurance and Food Safety Standards (4)	0.711	0.308	0.203	0.410			
Seafood Export Industry (5)	0.679	0.484	0.407	0.640	0.597		
Technological Advancements and Innovation (6)	0.697	0.127	0.310	0.352	0.289	0.553	

Table 3 shows the results of the discriminant validity analysis using the Heterotrait-Monotrait Ratio (HTMT) and the Average Variance Extracted (AVE) values. HTMT values assess the

distinction between constructs, while AVE values indicate the amount of variance explained by each construct.

The diagonal represents AVE values, reflecting the variance explained by each construct. Off-diagonal elements represent HTMT values, showing the discriminant validity between constructs. The results indicate adequate discriminant validity, as HTMT values are below 1 for all construct pairs, and the AVE values indicate substantial variance explained by each construct.

Predictive Accuracy (R²), Predictive Relevance (Q²), Effect Size (f²) and Collinearity Statistics (VIF)

Table 4. Predictive Accuracy (R²), Predictive Relevance (Q²), Effect Size (f²) and Collinearity Statistics (VIF)

Construct	R Square Adjusted	Q ² (=1-SSE/SSO)	f Square	VIF
Geographical Advantage			0.099	1.180
Government Policies and Support			0.054	1.108
Natural Resources and Aquatic Ecosystems			0.129	1.361
Quality Assurance and Food Safety Standards			0.151	1.239
Seafood Export Industry	0.580	0.367		
Technological Advancements and Innovation			0.151	1.198

The Seafood Export Industry construct's R Square Adjusted value is 0.580, implying that about 58% of its variance is explained by the model's independent variables. Notably, Geographical Advantage moderately impacts (f-square = 0.099), while Government Policies and Support have a smaller impact (f-square = 0.054). Natural Resources and Aquatic Ecosystems (f-square = 0.129) and Quality Assurance and Food Safety Standards (f-square = 0.151) hold stronger impacts. Technological Advancements and Innovation substantially influence (f-square = 0.151) the Seafood Export Industry. Construct collinearity, assessed by VIF statistics, shows no concerns. VIF values for Geographical Advantage, Government Policies and Support, Natural Resources and Aquatic Ecosystems, Quality Assurance and Food Safety Standards, and Technological Advancements and Innovation are 1.180, 1.108, 1.361, 1.239, and 1.198 respectively, all below 5, indicating low correlation. The Seafood Export Industry's VIF is missing. The Seafood Export Industry's cross-validated redundancy (Q²) is 0.367, signifying predictor variables collectively explain around 36.7% of its variance.

Hypothesis Results

The path coefficients, original sample values, p-values, and decisions for each hypothesis are presented as follows:

- *H4: Quality Assurance and Food Safety Standards ⇒ Seafood Export Industry*
The path coefficient for this relationship is 0.278, indicating a positive and significant association between quality assurance and food safety standards and the seafood export industry.
- *H5: Technological Advancements and Innovation ⇒ Seafood Export Industry*
The path coefficient for this relationship is 0.273, indicating a positive and significant impact of technological advancements and innovation on the seafood export industry.

- *H2: Natural Resources and Aquatic Ecosystems \Rightarrow Seafood Export Industry*
The path coefficient for this relationship is 0.269, suggesting a positive and significant link between natural resources and aquatic ecosystems and the seafood export industry.
- *H1: Geographical Advantage \Rightarrow Seafood Export Industry*
The path coefficient for this relationship is 0.220, demonstrating a positive and significant influence of geographical advantage on the seafood export industry.
- *H3: Government Policies and Support \Rightarrow Seafood Export Industry*
The path coefficient for this relationship is 0.157, indicating a positive and significant association between government policies and support and the seafood export industry.

Table 5. Path Coefficients

No.	Path	Original Sample (O)	P Values	Decision
H4	Quality Assurance and Food Safety Standards \Rightarrow Seafood Export Industry	0.278	0.000	Accepted
H5	Technological Advancements and Innovation \Rightarrow Seafood Export Industry	0.273	0.000	Accepted
H2	Natural Resources and Aquatic Ecosystems \Rightarrow Seafood Export Industry	0.269	0.000	Accepted
H1	Geographical Advantage \Rightarrow Seafood Export Industry	0.220	0.000	Accepted
H3	Government Policies and Support \Rightarrow Seafood Export Industry	0.157	0.001	Accepted

The results of the analysis support all the hypotheses, as the path coefficients are statistically significant, based on the t-statistics and p-values. This implies that the factors of quality assurance and food safety standards, technological advancements and innovation, natural resources and aquatic ecosystems, geographical advantage, and government policies and support have significant contributions to the seafood export industry.

Discussions

Importance of Quality Assurance and Food Safety Standards: The path coefficient of 0.278 between quality assurance and food safety standards and the seafood export industry highlights the critical role of ensuring high quality and safety standards in seafood production. This finding emphasizes the importance of implementing and maintaining robust quality control measures to meet international standards and enhance the competitiveness of seafood exports.

Technological Advancements and Innovation as Catalysts: The significant path coefficient of 0.273 between technological advancements and innovation in the seafood export industry indicates that embracing technological advancements and fostering innovation can drive growth and competitiveness in the seafood sector. This finding underscores the need for investment in research and development, technology adoption, and innovation-driven practices to enhance productivity, efficiency, and product differentiation in seafood exports.

Natural Resources and Aquatic Ecosystems as a Strategic Asset: The positive and significant relationship (path coefficient of 0.269) between natural resources and aquatic ecosystems and the seafood export industry underscores the strategic importance of preserving and sustainably managing these resources. The findings highlight the necessity of responsible resource management practices, conservation efforts, and sustainable fishing practices to maintain the long-term viability and sustainability of the seafood export industry.

Leveraging Geographical Advantage: The path coefficient of 0.220 between geographical advantage and the seafood export industry highlights the influence of favorable geographical

factors in shaping export capabilities. This finding suggests that leveraging natural geographic advantages, such as proximity to major markets, navigable waterways, and access to transportation infrastructure, can enhance the competitiveness of seafood enterprises in the Mekong Delta region.

Supportive Government Policies: The positive and significant relationship (path coefficient of 0.157) between government policies and support and the seafood export industry emphasizes the role of favorable policy environments in facilitating industry growth. This finding underscores the importance of government initiatives, regulatory frameworks, financial support, and trade agreements that promote and support the seafood export industry's development and competitiveness.

Synergistic Effects of Factors: The significant path coefficients for all factors indicate that the seafood export industry's performance is influenced by multiple interrelated factors. These factors, including quality assurance and food safety standards, technological advancements and innovation, natural resources and aquatic ecosystems, geographical advantage, and government policies and support, likely interact and reinforce each other's impacts, creating a synergistic effect on the industry's growth and success.

Recommendations

Strengthening quality assurance and food safety standards is crucial for seafood export industry competitiveness. Robust quality control measures, inspections, and certifications should be enforced to meet global standards. Technological advancements and innovation are vital for long-term growth; promoting research, technology adoption, and collaborations can enhance production, quality, and value-added products. Sustainable resource management, including responsible fishing practices and conservation efforts, would ensure resource availability for future generations. Leveraging geographical advantage would further involve improving transportation, logistics, and exploring diverse markets. Governments must offer supportive policies, financial aid, and collaboration among stakeholders. Regular dialogues with industry players can identify needs, tackle challenges, and promote sustainable development in the seafood export industry.

Implication for Practice

The study's implications for the Mekong Delta seafood export industry are significant. Enterprises should prioritize quality assurance, align with international standards, and secure certifications for product integrity. Embracing technological advancements, collaborating with research institutions, and investing in research and development are crucial for maintaining competitiveness. Adhering to fishing regulations, promoting responsible resource management, and engaging in conservation efforts ensure long-term industry viability. Exploring diverse markets, conducting thorough research, and tailoring marketing strategies reduce dependence on a single market. Collaboration with stakeholders, engagement in policy discussions, and leveraging government support foster collective growth and sustainability within the industry.

CONCLUSION

In conclusion, this study delved into the factors shaping the seafood export industry in the Mekong Delta region. The findings underscored the pivotal roles of geographical advantage, government policies, natural resources, quality assurance, and technological innovation in influencing the industry's performance. These factors had a direct and positive impact on its growth and competitiveness. The study's insights are valuable for industry practitioners and policymakers. Leveraging geographical advantage, optimizing government support, preserving resources, ensuring safety standards, and embracing innovation can enhance industry

sustainability. While acknowledging limitations like sample size and context, this research contributes to knowledge and offers strategies for a resilient seafood export industry in the Mekong Delta. Addressing various factors that influence seafood enterprises' export position in the region will provide a comprehensive understanding of informed decision-making and industry growth. This research bridges knowledge gaps and lays a foundation for the sustainable development of the Mekong Delta's seafood export sector.

REFERENCES

1. Ababouch, L., Nguyen, K. A. T., Castro de Souza, M., & Fernandez-Polanco, J. (2023). Value chains and market access for aquaculture products. *Journal of the World Aquaculture Society*, 54(2), 527–553. <https://doi.org/10.1111/jwas.12964>
2. An, L. Q., Tran, V. A., & Long, N. D. B. (2019). The Belt and Road Initiative and Its Perceived Impacts on the Textile and Garment Industry of Vietnam. *Journal of Open Innovation: Technology, Market, and Complexity*, 5(3), 59. <https://doi.org/10.3390/joitmc5030059>
3. Binh, B. Q. (2020). Vietnam Mekong River Delta: A regional connection perspective 1. In *Opportunities and Challenges for the Greater Mekong Subregion*. Routledge.
4. Dung, T. T. M., & Long, N. D. B. (2023). Eco-friendly Innovation and Corporate Evolution in Long An Province's Digital Transformation Age. *Oxford Journal of Technology, Arts, Sciences and Knowledge*, 3(1), Article 1. <https://ojtask.com/index.php/ojtask/article/view/33>
5. Joffre, O. M., De Vries, J. R., Klerkx, L., & Poortvliet, P. M. (2020). Why are cluster farmers adopting more aquaculture technologies and practices? The role of trust and interaction within shrimp farmers' networks in the Mekong Delta, Vietnam. *Aquaculture*, 523, 735181. <https://doi.org/10.1016/j.aquaculture.2020.735181>
6. Joffre, O. M., Klerkx, L., & Khoa, T. N. D. (2018). Aquaculture innovation system analysis of transition to sustainable intensification in shrimp farming. *Agronomy for Sustainable Development*, 38(3), 34. <https://doi.org/10.1007/s13593-018-0511-9>
7. Khanh Nguyen, H. T., Nang Thu, T. T., Lebailly, P., & Azadi, H. (2019). Economic challenges of the export-oriented aquaculture sector in Vietnam. *Journal of Applied Aquaculture*, 31(4), 367–383. <https://doi.org/10.1080/10454438.2019.1576568>
8. Liang, C., & Shah, T. (2023). IoT in Agriculture: The Future of Precision Monitoring and Data-Driven Farming. *Eigenpub Review of Science and Technology*, 7(1), Article 1.
9. Long, N. D. B., Trang, L. T., Doan, T. C., Ai, T. V., An, L. Q., & Hudson, A. (2022). The Belt and Road Initiative (BRI): Opportunities and Risks from Vietnamese Perspective. *The Journal of Asian Finance, Economics and Business*, 9(4), 229–238. <https://doi.org/10.13106/JAFEB.2022.VOL9.NO4.0229>
10. Macro Gioacchino, P. (2018). *Aquaculture Research & Sustainability: Integrated Multi-Trophic Aquaculture (IMTA)*. Aqua Farm Pordenone. <https://www.aquafarm.show/wp-content/uploads/2018/06/PISTRIN-Marco-01.pdf>
11. Nguyen, T. A. T., & Jolly, C. M. (2020). Global value chain and food safety and quality standards of Vietnam pangasius exports. *Aquaculture Reports*, 16, 100256. <https://doi.org/10.1016/j.aqrep.2019.100256>
12. Overbosch, P., & Blanchard, S. (2023). Chapter 25—Principles and Systems for Quality and Food Safety Management. In V. Andersen, H. Lelieveld, & Y. Motarjemi (Eds.), *Food Safety Management (Second Edition)* (pp. 497–512). Academic Press. <https://doi.org/10.1016/B978-0-12-820013-1.00018-8>
13. Phillips, D. (2021). *Southeast Asia, Second Edition*. Infobase Holdings, Inc.
14. Troell, M., Costa-Pierce, B., Stead, S., Cottrell, R. S., Brugere, C., Farmery, A. K., Little, D. C., Strand, Å., Pullin, R., Soto, D., Beveridge, M., Salie, K., Dresdner, J., Moraes-

- Valenti, P., Blanchard, J., James, P., Yossa, R., Allison, E., Devaney, C., & Barg, U. (2023). Perspectives on aquaculture's contribution to the Sustainable Development Goals for improved human and planetary health. *Journal of the World Aquaculture Society*, 54(2), 251–342. <https://doi.org/10.1111/jwas.12946>
15. USAID. (2023, July 17). *Mekong Delta Coastal Habitat Conservation*. U.S. Agency for International Development. <https://www.usaid.gov/vietnam/fact-sheets/mekong-delta-coastal-habitat-conservation>
 16. WB. (2019, October 1). *Vietnam and the Mekong Delta: Drafting a plan to ensure greater productivity and climate-resilience*. World Bank Blogs. <https://blogs.worldbank.org/en/eastasiapacific/vietnam-and-mekong-delta-drafting-plan-ensure-greater-productivity-and-climate>