International Journal of Environmental Sciences
ISSN: 2229-7359
Vol. 11 No. 8, 2025
https://theaspd.com/index.php

How Can Resilient And Adaptive Halal Logistics Influence Competitive Advantages In The Digital Era?

Euis Saribanon[1], Asep Muhammad Ramdhan[2], Indriyati[3], Asep Muhammad Ramdhan[4], Marco Tieman[5], Basri Fahriza[6], Muhamad Arief Ramdhany[7]

[1,3,6] Faculty of Management and Business, Trisakti Institute of Transportation and Logistics, Indonesia,

[2,4] Faculty of Social Sciences, Muhammadiyah University of Sukabumi com,

[5] IPMI International Business School, Indonesia,

[7] Faculty of Economics and Business Education, Universitas Pendidikan Indonesia, Indonesia

[1] nengnonon04@gmail.com

Abstract– *This study aimed to ascertain the relationship between resilient and adaptive halal logistics and competitive advantage by developing a theoretical model and identifying its implications in the digital era. It further explores how resilience and adaptability can address operational challenges. This study also suggests avenues for future research to enhance halal logistics practices in Indonesia and globally. This study synthesizes the literature on halal logistics, technology adoption, and competitive advantage to develop a conceptual framework. The theoretical foundation integrates the Resource-Based View (RBV) and Technology Acceptance Model (TAM) to explore how resilience and adaptability influence competitive advantage in the halal logistics sector. This study suggests that halal logistics positively influence the competitive advantages of logistics companies. Additionally, it affirms that technology adoption serves as a moderator, enhancing the relationship between halal logistics and competitive advantage by improving efficiency, transparency, adaptability, and customer trust in logistics. This study synthesizes previously unconnected variables–halal logistics and competitive advantages–and integrates RBV and TAM theories to establish a robust theoretical framework. However, the proposed framework requires further validation through additional empirical research to confirm its applicability and relevance to real-world contexts. Logistics companies can enhance their competitive advantages by integrating halal logistics practices with technology adoption, improving operational efficiency, customer trust, and adaptability to market demands.*

Keywords– *Halal logistics; Halal certification; Logistics competitive advantages; Technology adoption*

1. INTRODUCTION

In a world that is becoming more interconnected and globalized, the logistics sector is required to facilitate smooth transportation of goods across international borders [1], [2], [3]. For Muslim-majority nations and the global halal market, halal logistics has emerged as a critical subset of the logistics sector, ensuring compliance with Islamic principles and activities [4], [5], [6], [7]. Halal logistics adhere to religious requirements and align with the growing global demand for ethical, clean, and traceable supply chains [8], [9], [10], [11]. As the digital era transforms traditional business models, logistics providers ability to remain resilient and adaptive has become a cornerstone of sustaining a competitive advantage in this specialized sector [12].

The emergence of halal logistics globally and in Indonesia reflects a growing demand for ethical traceable supply chains that align with Islamic principles. Malaysia has pioneered halal logistics frameworks globally by emphasizing halal certification and compliance across supply chains [7], [13]. As the largest Muslim-majority country, Indonesia is rapidly advancing its halal logistics sector, driven by strong consumer demand and government support [14], [15]. Best practices include the implementation of halal certification systems that ensure end-to-end compliance, as seen in the Jabatan Kemajuan Islam Malaysia (JAKIM), Central Islamic Committee of Thailand (CICOT), and Majelis Ulama Indonesia standards [14], [16], [17]. The adoption of technologies such as blockchain and IoT enhances traceability and transparency, fostering trust among consumers [13], [18]. Logistics firms that leverage these practices gain competitive advantages through market differentiation, improved efficiency, and expanded access to the global halal market [19], [20].

Several issues in the implementation of halal logistics include high operational costs, fragmented infrastructure, and the need for global standardization [21]. These obstacles are compounded by rapid technological advancements, which require logistics systems to integrate digital solutions while maintaining

halal integrity [22]. Resilience and adaptability are vital for logistics companies to handle disruptions and respond to changing market [23], [24]. However, there is a lack of research exploring how these attributes in halal logistics contribute to a competitive advantage in the digital age.

This study explores halal resilience and adaptability of halal logistics in influencing the competitive advantages of Indonesian logistics companies. It further examines the growing prominence of halal logistics, particularly in Indonesia, alongside the implementation of halal certification, dynamics of logistics competitive advantage, and their interrelationships. Additionally, this study investigated the moderating role of technology adoption in strengthening theoretical propositions.

2. METHOD

This study employs a conceptual research design using literature synthesis. Relevant research on halal logistics, technological adoption, resilience, flexibility, and competitive advantage was sourced from academic databases including Scopus, Web of Science, and Google Scholar. The investigation utilized integrative synthesis, employing the Resource-Based View (RBV) and Technology Acceptance Model (TAM) as theoretical frameworks. This process facilitated the creation of a conceptual framework that connects resilience and adaptation in halal logistics to competitive advantage, while recognizing the moderating influence of technology adoption.

3. FINDINGS AND DISCUSSIONS

The Rise of Halal Logistics

The concept of halal logistics stems from the broader principles of halal, which refer to practices permissible under Islamic law [4]. In the context of logistics, ensuring that the entire supply chain, from sourcing and storage to transportation and delivery, complies with halal requirements [25], [26]. This includes avoiding contamination with non-halal products and maintaining cleanliness and integrity throughout the process. The implementation of halal logistics is guided by established standards, such as those provided by certification bodies, such as JAKIM in Malaysia and MUI in Indonesia, which outline specific procedures for ensuring compliance [14], [17].

In practice, the infrastructure in halal logistics requires separate storage space and transport vehicles for rigorous processes, including compliance, cleaning protocols, and documentation [27]. Technological advancements such as blockchain for traceability and IoT for real-time monitoring have been implemented to ensure compliance at every stage [28]. Malaysia and Indonesia, as the forefront of halal logistics, leverage these practices to gain a competitive advantage in the global halal market [21]. As the demand for halal products grows, logistics providers must meet regulatory requirements and adapt to consumer expectations for ethical and transparent supply chains [29].

Halal logistics constitutes a system of managing the supply chain in accordance with Islamic principles, ensuring that products remain halal (permissible) throughout their journey from origin to consumer. This involves several key elements, including halal certification, which verifies that all goods and processes comply with religious standards [5], [6], [26]; segregation to prevent cross-contamination with non-halal products; and cleaning protocols, especially when shared facilities or vehicles are used [30]. It also incorporates traceability mechanisms to monitor and document the handling of goods at each stage [13]. Additionally, training personnel on halal practices and the adoption and use of technologies to enhance compliance and transparency further define the framework [31]. These elements can add to the level of integrity and trustworthiness of halal products in the market.

The development of halal logistics in Indonesia has been gradual, with significant progress in recent years. Historically, the concept of halal has focused primarily on food production and certification, with less emphasis on the logistics and supply chain aspects [25]. However, as the global halal market expanded and consumer awareness increased, the need for comprehensive halal logistics became increasingly apparent. In 2016, initiatives such as the collaboration between PT Pelabuhan Indonesia II and PT Jakarta Industrial Estate Pulogadung to develop integrated halal logistics areas marked a pivotal step towards formalizing halal logistics practices in the country [32]. The progress is still hindered by the lack of specific regulations and standards governing halal logistics, which stakeholders are actively working to address to ensure compliance with domestic and global halal market requirements [33].

Indonesia's progress is still maturing compared to Malaysia, which is recognized as a global leader with a well-established halal logistics infrastructure and rigorous certification standards under JAKIM. Malaysia's strong government support and established infrastructure have positioned it as a hub for halal trade [34], [35]. Meanwhile, countries like Japan and Russia, despite being non-Muslim-majority nations, have adopted halal logistics to cater to their growing Muslim populations and halal tourism industries [36], [37]. These countries focus on integrating halal compliance with advanced technologies such as blockchain to enhance traceability [8].

Indonesia has a massive domestic halal market, but faces gaps in limited infrastructure and technological adoption. However, the potential of Indonesia to lead the global halal logistics sector is significant, as it addresses these gaps. Strengthening halal certification systems and integrating digital solutions can position Indonesia as a competitive player in the global market [38]. Furthermore, a halal certificate process requires coordination among government agencies, corporate sectors, and international organizations to solve logistical challenges and guarantee long-term growth in the halal supply chain [39].

Implementation of Halal Certificate

In addition to halal logistics, halal certificates have become increasingly important. Halal certification has been used to determine the compliance of products and services with Islamic regulations, so they are permissible for Muslim consumption or use [17], [27]. It is a pillar of the halal sector, ensuring consumer integrity, cleanliness, and compliance throughout production, handling, and distribution [35]. For businesses, halal certification enhances credibility and opens access to a growing global halal market.

The primary reason for halal certification is to meet the religious requirements of Muslim consumers, while addressing the growing demands for ethical and hygienic practices in the global market. Certification can prove halal compliance in international trade to promote openness and trust [27], [37]. Furthermore, accreditation gives firms a competitive advantage by broadening their market reach and meeting regulatory requirements in Muslim-majority and minority communities [32].

In Indonesia, halal certification gained momentum in the late 20th century with the establishment of Majelis Ulama Indonesia (MUI) in 1975, which began issuing halal certifications through its Halal Product Assurance Agency (BPJPH). This was formalized by the Halal Product Assurance Law (UU JPH) in 2014, which mandates halal certification for all consumable and usable products by Muslim consumers. Implementation gained further structure with the government's efforts to integrate certification into export frameworks and to strengthen consumer protection.

In Indonesia, halal certification gained momentum in the late 20th century with the establishment of Majelis Ulama Indonesia (MUI) in 1975, which began issuing halal certifications through its Halal Product Assurance Agency (Badan Penyelenggara Jaminan Produk Halal/BPJPH). It was formalized by the Halal Product Assurance Law (UU JPH) in 2014, mandating halal certification for all consumable and usable products by Muslim consumers. Implementation has gained further structure with the government's efforts to integrate certification into export frameworks and strengthen consumer protection [26].

Indonesia's halal certification system is robust, with the MUI being a globally recognized certifying body. However, Malaysia is often considered a pioneer in halal certification because of its early establishment in the Department of Islamic Development Malaysia (Jabatan Kemajuan Islam Malaysia/JAKIM) [34], which operates under a centralized and streamlined process. Malaysia's system is regarded as a global benchmark and is more export-oriented, so the country can facilitate international trade through extensive partnerships and mutual recognition agreements.

In contrast, countries such as Japan and Thailand have focused on adapting halal certification to meet the needs of growing Muslim tourist populations [35], [37]. These countries emphasize collaboration with local Islamic organizations and international bodies to ensure compliance while making halal practices compatible with local industries. Non-Muslim-majority countries, such as Russia, approach halal certification as a business strategy to tap into the expanding halal market, emphasizing certification as part of trade and economic growth strategies [36].

As one of the main players in the halal industry, Indonesia continues to face challenges. These include the inconsistent application of halal standards across industries, limited infrastructure, and gaps in technological integration for traceability. However, the vast domestic halal market, government support, and potential for

adopting advanced technologies may push Indonesia to strengthen its halal certification framework and compete globally.

Logistics Competitive Advantages

Logistics' competitive advantage has to do with a company's ability to outperform competitors by optimizing its supply chain processes to deliver superior value to customers [19]. Logistics is a critical differentiator in the modern market, influencing cost efficiency, service quality, and responsiveness to customer demand. Resilient logistics companies can reduce their operational costs and adapt to market changes to maintain customer satisfaction. Product delivery is both effective and efficient. As global trade intensifies and consumer expectations evolve, firms must prioritize agility and efficiency to remain competitive. Logistics companies can maintain their competitiveness by considering the extensive use of digital technologies and optimizing supply chain networks [20].

Logistics companies in Indonesia are seeking new ways to boost their competitiveness. Many are turning to digital tools, such as real-time tracking and IoT-based fleet management, to streamline their operations and improve their delivery times [28], [40]. To provide better service, many logistics companies in Indonesia have implemented efficient digital platforms, such as JNE and PT Pos Indonesia. However, companies face challenges in terms of fragmented infrastructure and complex regulation. This is worsened by the heavy reliance on traditional logistics practices. To be competitive, logistics companies must overcome these obstacles.

Compared to neighboring countries such as Singapore and Malaysia, Indonesia's position is still far behind in logistics regarding advanced infrastructure, technology integration, and government support. Singapore's strategic location and adoption of innovative logistics systems make it a global logistics center. In Malaysia, halal logistics are supported by well-established halal certification systems and an effective logistics infrastructure [7], [21]. The United States and Germany prioritize optimizing supply chain operations and boosting competitiveness using automation, artificial intelligence (AI), and advanced analytics [41]. While lagging in infrastructure and technological integration, Indonesia holds vast potential because of its growing market and government's focus on infrastructure development.

Indonesia's logistics sector challenges include fragmented infrastructure across its archipelago, regulatory inefficiencies, and lack of advanced technologies in smaller logistics firms. Optimization of the supply chain can be hindered, and operational costs will also increase. However, opportunities abound in the form of government-led infrastructure projects, the rise of e-commerce driving logistics demand, and the potential to adopt digital technologies, such as blockchain for transparency and efficiency. Additionally, Indonesia's strategic position in Southeast Asia provides an opportunity to become a key logistics hub, particularly in halal logistics, with appropriate investments and policy support [31], [32].

Resilient-Adaptive Halal Logistics and Competitive Advantage

Resilient and adaptive halal logistics enables logistics companies to handle disruptive environments and market demands. At the same time, halal logistics adheres to halal compliance. In Indonesia, where the halal market is significant, maintaining halal integrity across supply chains enhances customers' trust and loyalty. Companies can continue operations with limited infrastructure and supply chain interruptions. Adaptive companies respond to changes in consumer preferences and government regulations. With resilient and adaptive halal logistics, companies can provide reliable customer service, which is one of the important aspects of gaining competitive advantages [20].

The resilience and adaptability of halal logistics reflect the actual value of logistics companies. Indonesian logistics enterprises can stand out in a crowded market by investing in halal certification, training, and technology-driven solutions, such as IoT and blockchain. Indonesia's largest Muslim population has increasingly demanded halal certifications for almost every product. Companies demonstrating their capacity to manage halal items are more likely to attract clients who value dependability and ethical compliance, while preserving cost-effectiveness and service quality. This gives them a competitive advantage over less specialized competitors [22].

s the halal logistics industry grows, Indonesian logistics firms must capitalize on their domestic market strengths and address industry challenges. Companies can mitigate risks by enhancing supply chain resilience through the diversification of transport modes, halal infrastructure building, and innovation in

digital systems. Moreover, the implementation of adaptability in halal standards for some commodities (food, cosmetics, and pharmaceuticals) will allow companies to expand their market reach [4]. Such efforts not only strengthen their domestic position, but also prepare them to compete in the global halal logistics market. Of course, they have prepared the demand for transparency, traceability, and compliance that continues to rise.

Role of technology adoption as moderator

Technology adoption plays a critical role in strengthening the relationship between halal logistics and the competitive advantage of logistics companies, particularly when analyzed from the Technology Acceptance Model (TAM) viewpoint. The TAM highlights two key factors (perceived usefulness and perceived ease of use) that influence technology adoption. Logistics companies can then integrate advanced technologies into halal logistics operations by adopting suitable technologies [8]. Technology adoption can enhance efficiency, transparency, and service quality. Technologies such as blockchain, IoT, and AI can ensure halal compliance across the supply chain to improve operational performance and build customer trust, which are vital for a competitive advantage.

As a moderator variable, technology adoption amplifies the positive impact of halal logistics on competitive advantage by addressing the critical operational challenges. Companies can use real-time tracking systems and digital verification tools to make the halal certification process more efficient [28]. This can also minimize errors and delays. With the adoption of the right technology, halal logistics can ensure compliance as a must and a differentiator in the halal industry. The rather fragmented infrastructure and manual processes of halal logistics in Indonesia can adapt this moderating effect to improve halal logistics efficiency and competitive advantage.

Moreover, technology adoption allows logistics companies to adapt to market demand and strengthen their innovation capacity [42]. Companies can leverage consumers with accessible mobile applications to track their journey toward halal goods. This adaptability can foster a competitive advantage because companies with this technology can effectively excel in terms of reliability, speed, and compliance. The moderating role of technology adoption bridges the gap between traditional halal logistics practices and modern requirements, enabling logistics companies to achieve sustained competitive advantage in the digital era.

Synthesizing the review of resilient and adaptive halal logistics and competitive advantage, we theorize that technology adoption also influences logistics companies' competitive advantages. Additionally, technology adoption moderates the relationship between halal logistics and competitive advantage.

Theoretical model and preposition

Based on several reviews of halal logistics, competitive advantage, and technology adoption, a theoretical model can be developed, as shown in Figure 1. The theoretical foundation integrates the Resource-Based View (RBV) and Technology Acceptance Model (TAM) to explore how resilience and adaptability influence competitive advantage in the halal logistics sector with technology adoption as a moderator variable.

Resource-Based View (RBV) theory emphasizes that an organization's competitive advantage stems from valuable, rare, inimitable, and non-substitutable (VRIN) resources. In the context of halal logistics, these resources include tangible assets such as halal-certified infrastructure and intangible capabilities such as adherence to halal principles, supply chain resilience, and the ability to adapt to market demands. Previous studies [6], [43] highlight that firms leveraging unique capabilities, such as halal compliance systems and efficient supply chain practices, can differentiate themselves and capture market opportunities, especially in regions with high demand for halal-certified goods, such as Indonesia.

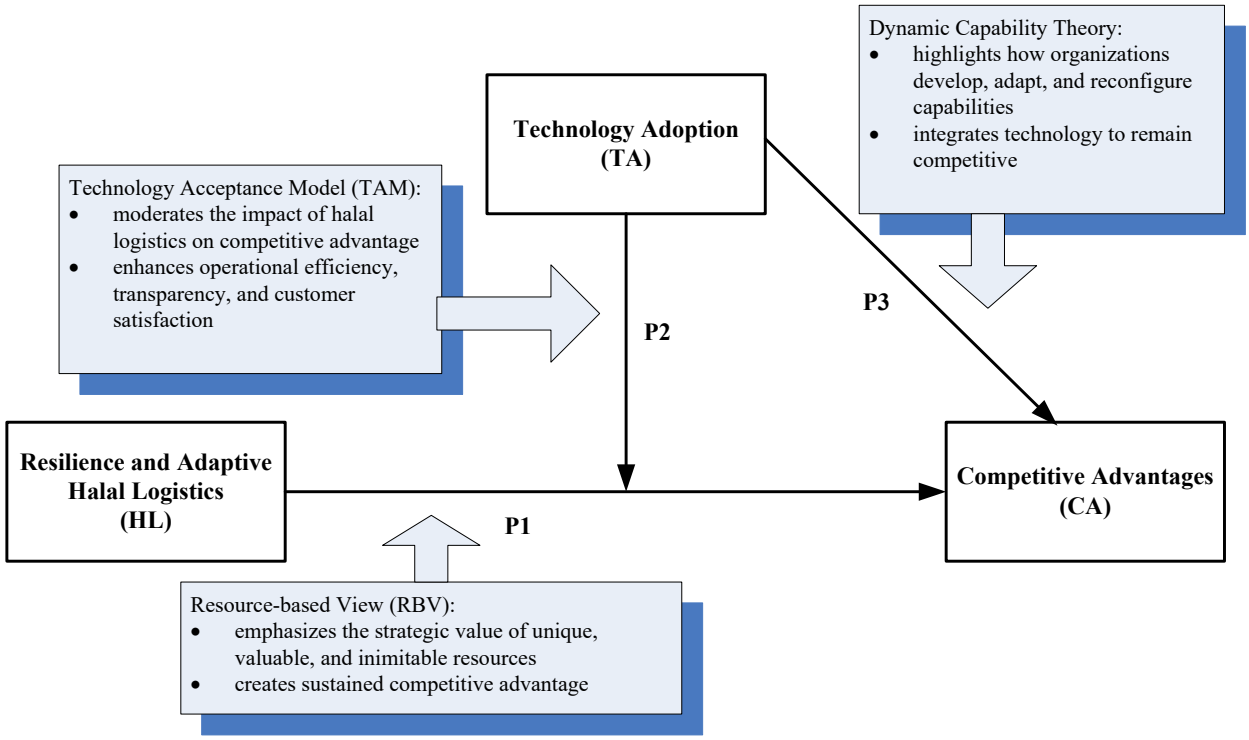

Figure 1: Theoretical Model

Halal logistics inherently incorporates halal certification to ensure the integrity of goods along the supply chain and build consumer trust as a crucial competitive advantage. Tieman [26] underscores the importance of halal certification as a driver of supply chain credibility and market acceptance. The integration of RBV with halal logistics demonstrates that competitive advantage is reinforced when logistics firms exhibit resilience in overcoming disruptions. It will also strengthen adaptability to dynamic market conditions and robust halal integrity management systems. With these capabilities, companies can sustain their operations and maintain compliance to respond effectively to customer demands. These capabilities have led to a solid market position.

Focusing on customers and sustainable adaptability can enhance the strategic value of halal logistics. Aligning with the RBV, firms that focus on long-term planning, eco-friendly practices, and customer engagement create additional layers of value. Studies such as that of Mustapha et al. [29] suggest that firms prioritizing halal compliance and environmental sustainability outperform competitors in terms of customer satisfaction and market share. Logistics companies can achieve a resilient and adaptive supply chain by focusing on halal logistics dimensions, including traceability systems and digital innovations. This integration of RBV principles with halal logistics ensures a sustainable competitive advantage in an increasingly globalized and halal-conscious market.

Three propositions are presented to explain the relationship between the variables (Table 3) for potential future research.

Table 1: Research propositions

Path	Rationale	Propositions
HL → CA	The direct relationship between resilient and adaptive halal logistics and competitive advantages can be effectively explained by RBV. It emphasizes the strategic value of unique, valuable, and inimitable resources (e.g., halal-certified logistics and adaptive supply chain	P1. Halal Logistics positively influence competitive advantages

Path	Rationale	Propositions
	management) in creating sustained competitive advantage	
TA → P1	TAM suggests that perceived usefulness and ease of use drive the adoption of technology, which enhances operational efficiency, transparency, and customer satisfaction	P2. Technology adoption moderates the impact of halal logistics on competitive advantage
TA → CA	Technology adoption highlights how organizations develop, adapt, and reconfigure capabilities (e.g., integrating technology) to remain competitive in changing markets.	P3. Technology adoption positively influences competitive advantages

4. CONCLUSION

This study developed a conceptual model linking resilient and adaptive halal logistics, technology adoption, and the competitive advantages of logistics companies in Indonesia. Drawing on the Resource-Based View (RBV) and Technology Acceptance Model (TAM), this study proposes that resilient and adaptive halal logistics can significantly influence competitive advantage, with technology adoption moderating this relationship. Several previous studies have supported this relevance by highlighting the strategic role of logistics resilience and technology integration in improving the performance of logistics companies. This study shows that technology adoption can moderate the relationship between halal logistics and competitive advantage by improving traceability, transparency, and adaptability in the supply chain.

Technology adoption is essential for supporting competitive advantages by enabling logistics firms to adapt to dynamic market demands and meet consumer expectations. Logistics companies can focus on halal compliance while optimizing operational efficiency and responding quickly to disruptions. With technology integration, companies can differentiate services, build customer trust, and achieve sustainable competitive advantage in an ever-evolving market. Adaptability is important for the development of logistics companies in a competitive and global digital era. Therefore, companies need to assess consumer demand and rapidly change market conditions.

A theoretical basis is generated from the proposed model. However, empirical research is still required to validate these propositions. Further research can focus on testing this framework across industries and regions, so that the findings can be generalized. In addition, the specific types of technologies that are most effective in enhancing halal logistics and competitive advantage can be further explored to add practical value. For practitioners and academics, this study is recommended to encourage collaboration to overcome barriers to technology adoption and to develop strategies that are in line with market demand and Islamic principles. This alignment enables logistics firms to maximize their market potential while maintaining halal integrity.

5.REFERENCES

[1] H. Brdulak and A. Brdulak, "Challenges and Threats Faced in 2020 by International Logistics Companies Operating on the Polish Market," Sustainability, vol. 13, no. 1, Art. no. 1, Jan. 2021, doi: 10.3390/su13010359.

[2] S. Jagtap, F. Bader, G. Garcia-Garcia, H. Trollman, T. Fadiji, and K. Salonitis, "Food Logistics 4.0: Opportunities and Challenges," Logistics, vol. 5, no. 1, Art. no. 1, Mar. 2021, doi: 10.3390/logistics5010002.

[3] D. Yener, "Halal Food Market and Opportunities for Logistics Sector," in Emerging Research on Islamic Marketing and Tourism in the Global Economy, IGI Global Scientific Publishing, 2015, pp. 116–134. doi: 10.4018/978-1-4666-6272-8.ch006.

[4] M. S. E. Azam and M. A. Abdullah, "Global halal industry: Realities and opportunities," IJIBE (International Journal of Islamic Business Ethics), vol. 5, no. 1, Art. no. 1, Mar. 2020, doi: 10.30659/ijibe.5.1.47-59.

[5] F. Mayor-Vitoria, "Halal market opportunities and logistics in Spain," in Halal Logistics and Supply Chain Management, Routledge, 2022.

[6] M. S. A. Talib, A. B. A. Hamid, and T. A. Chin, "Can halal certification influence logistics performance?," Journal of Islamic Marketing, vol. 7, no. 4, pp. 461–475, Nov. 2016, doi: 10.1108/JIMA-02-2015-0015.

[7] M. Tieman and M. C. Ghazali, "Halal Control Activities and Assurance Activities in Halal Food Logistics," Procedia - Social and Behavioral Sciences, vol. 121, pp. 44–57, Mar. 2014, doi: 10.1016/j.sbspro.2014.01.1107.

[8] L. A. H. F. Dashti, T. Jackson, A. West, and L. Jackson, "Enhancing halal food traceability: a model for rebuilding trust and integrity in Muslim countries," Journal of Islamic Marketing, vol. 15, no. 12, pp. 3382–3408, Aug. 2024, doi: 10.1108/JIMA-06-2023-0167.
[9] M. Ghalih and C.-H. Chang, "Enhancing Sustainability in Halal Supply Chain: A Framework for Aligning With ESG and SDGs," in Building Climate Neutral Economies Through Digital Business and Green Skills, IGI Global Scientific Publishing, 2024, pp. 335–364. doi: 10.4018/979-8-3693-5673-9.ch014.
[10]M. M. Rahman, "Halal Industry 4.0 and Knowledge Management: Technological Integration and Sustainability," in Innovative Ventures and Strategies in Islamic Business, IGI Global Scientific Publishing, 2025, pp. 221–246. doi: 10.4018/979-8-3693-3980-0.ch010.
[11]A. B. Wirakurnia, P. Nuanmark, H. Sudarsono, and A. Ramadhana, "Do religiosity, halal knowledge, and halal certification affect Muslim students' intention to purchase halal packaged food?," Asian. J. Islam. Manag., vol. 3, no. 2, pp. 97–110, 2021, doi: 10.20885/ajim.vol3.iss2.art3.
[12]S. E. Hidayat and K. Musari, "ASEAN Towards a Global Halal Logistics Through the Digitally Enabled Community," IJABIM, vol. 13, no. 2, pp. 1–15, Aug. 2022, doi: 10.4018/IJABIM.20220701.oa1.
[13]Y. Fernando, I. S. Wahyuni-TD, A. Z. Abideen, and F. Mergeresa, "Traceability technology, halal logistics brand and logistics performance: religious beliefs and beyond," Journal of Islamic Marketing, vol. 14, no. 4, pp. 1007–1031, Feb. 2022, doi: 10.1108/JIMA-06-2020-0183.
[14]S. Suharko, S. D. Khoiriati, I. M. Krisnajaya, and D. Dinarto, "Institutional conformance of Halal certification organisation in Halal tourism industry: The cases of Indonesia and Thailand," Tourism: An International Interdisciplinary Journal, vol. 66, no. 3, pp. 334–348, Sep. 2018.
[15]A. Susanty, N. B. Puspitasari, S. Silviannisa, and S. Jati, "Measuring halal logistics implementation," Journal of Islamic Marketing, vol. 14, no. 7, pp. 1669–1695, May 2022, doi: 10.1108/JIMA-08-2021-0266.
[16]C. Bux, E. Varese, V. Amicarelli, and M. Lombardi, "Halal Food Sustainability between Certification and Blockchain: A Review," Sustainability, vol. 14, no. 4, Art. no. 4, Jan. 2022, doi: 10.3390/su14042152.
[17]M. Zainuddin, M. D. Sabri, A. Azemi, and A. Abdullah, "Analysis of Halal Certification Management in Jakim through Public Complaint Feedback," International Journal of Religion, vol. 5, no. 1, pp. 1–16, 2024, doi: https://doi.org/10.61707/x9mfqz48.
[18]A. Tan, D. Gligor, and A. Ngah, "Applying Blockchain for Halal food traceability," International Journal of Logistics Research and Applications, vol. 25, no. 6, pp. 947–964, Jun. 2022, doi: 10.1080/13675567.2020.1825653.
[19]C.-H. Chang, C.-S. Lu, and P.-L. Lai, "Examining the drivers of competitive advantage of the international logistics industry," International Journal of Logistics Research and Applications, vol. 25, no. 12, pp. 1523–1541, Dec. 2022, doi: 10.1080/13675567.2021.1915263.
[20]M. Sodikin and S. Susilowati, "Competitive Advantage Development Model with Logistics Competence," Journal of Digital Marketing and Halal Industry, vol. 6, no. 1, Art. no. 1, Jul. 2024, doi: 10.21580/jdmhi.2024.6.1.20033.
[21]M. S. E. Azam and M. A. Abdullah, "Halal Standards Globally," Halalsphere, vol. 1, no. 1, Art. no. 1, Feb. 2024, doi: 10.31436/hs.v1i1.20.
[22]N. Nurhayati, "Digital innovation in halal logistics: An Indonesian case study," Agripreneur : Jurnal Pertanian Agribisnis, vol. 12, no. 2, Art. no. 2, Dec. 2023, doi: 10.35335/agripreneur.v12i2.4672.
[23]H. Aslam, A. Q. Khan, K. Rashid, and S. Rehman, "Achieving supply chain resilience: the role of supply chain ambidexterity and supply chain agility," Journal of Manufacturing Technology Management, vol. 31, no. 6, pp. 1185–1204, Apr. 2020, doi: 10.1108/JMTM-07-2019-0263.
[24]M. Song, X. Ma, X. Zhao, and L. Zhang, "How to enhance supply chain resilience: a logistics approach," The International Journal of Logistics Management, vol. 33, no. 4, pp. 1408–1436, Jul. 2022, doi: 10.1108/IJLM-04-2021-0211.
[25]M. S. A. Talib and S. N. Wahab, "Halal logistics in a rentier state: an observation," Modern Supply Chain Research and Applications, vol. 3, no. 2, pp. 155–170, Apr. 2021, doi: 10.1108/MSCRA-04-2020-0005.
[26]M. Tieman, "Halal Supply Chain Certification: The Next Frontier in Halal Certification?," ICR Journal, vol. 9, no. 2, pp. 233–236, Sep. 2020.
[27]T. Z. Yaacob, M. A. Majid, H. I. C. Hashim, and M. Z. Hasan, "A Systematic Review of Traceability and Monitoring in Port Transportation Processes for Halal Compliance and Certification," Journal of Accounting, Business and Management (JABM), vol. 32, no. 1, Art. no. 1, Oct. 2024, doi: 10.31966/jabminternational.v32i1.1458.
[28]B. Harsanto, J. I. Farras, E. A. Firmansyah, M. Pradana, and A. Apriliadi, "Digital Technology 4.0 on Halal Supply Chain: A Systematic Review," Logistics, vol. 8, no. 1, Art. no. 1, Mar. 2024, doi: 10.3390/logistics8010021.
[29]M. R. Mustapha, F. Ahamad, N. Y. Hazahari, and N. Samsudin, "Ethical issues in the halal food supply chain: a systematic bibliometric review," Journal of Islamic Marketing, vol. 15, no. 12, pp. 3804–3819, Jun. 2024, doi: 10.1108/JIMA-07-2023-0210.
[30]N. Karia, "Halal logistics: practices, integration and performance of logistics service providers," Journal of Islamic Marketing, vol. 13, no. 1, pp. 100–118, Jul. 2019, doi: 10.1108/JIMA-08-2018-0132.
[31]I. Masudin, F. Jie, and W. Widayat, "Impact of halal supplier service quality and staff readiness to adopt halal technology on halal logistics performance: a study of Indonesian halal meat supply chain," International Journal of Agile Systems and Management, vol. 13, no. 3, pp. 315–338, Jan. 2020, doi: 10.1504/IJASM.2020.109258.
[32]D. Rizki, W. N. Jadidah, R. A. A. Afif, M. N. Akhtiar, and F. H. N. Athief, "Development of Indonesian Halal Logistic: A Swot Approach," Journal of Digital Marketing and Halal Industry, vol. 6, no. 1, Art. no. 1, Jul. 2024, doi: 10.21580/jdmhi.2024.6.1.22678.
[33]Y. D. Lestari and F. Saidah, "Halal logistics implementation: SWOT analysis in Indonesia," in 2nd Onlnie Conference on Multidisciplinary Academic Research, 2020, pp. 2–8. Accessed: Dec. 26, 2024. [Online]. Available: https://apiar.org.au/wp-content/uploads/2021/01/2_OCMAR_Nov_2020_BRR719_Bus_pp.2-8.pdf
[34]L. O. Nazaruddin, B. Gyenge, M. Fekete-Farkas, and Z. Lakner, "The Future Direction of Halal Food Additive and Ingredient Research in Economics and Business: A Bibliometric Analysis," Sustainability, vol. 15, no. 7, pp. 1–40, 2023.

[35]N. A. A. Rahman, N. H. Ghafar, E. Yuliana, M. I. A. Moin, N. M. Nur, and N. Z. M. Zuhudi, "The evolution of Halal logistics in Malaysia, Thailand, Indonesia, the Philippines and Vietnam," in Halal Logistics and Supply Chain Management in Southeast Asia, Routledge, 2020.
[36]G. Nurgalieva, "The Islamic Economy - The Fastest Growing Large Economy. Eurasian Focus," Oct. 17, 2018, Social Science Research Network, Rochester, NY: 3268043. doi: 10.2139/ssrn.3268043.
[37]H. K. Yamaguchi, "The potential and challenge of halal foods in Japan," Journal of Asian Rural Studies, vol. 3, no. 1, Art. no. 1, Jan. 2019, doi: 10.20956/jars.v3i1.1712.
[38]S. Prabowo, A. A. Rahman, S. A. Rahman, and A. A. Samah, "Revealing factors hindering halal certification in East Kalimantan Indonesia," Journal of Islamic Marketing, vol. 6, no. 2, pp. 268–291, Jun. 2015, doi: 10.1108/JIMA-05-2014-0040.
[39]H. D. Mulyaningsih, W. Dahlan, A. Suksuwan, K. Katelakha, S. Rahmawati, and A. W. Rachmawati, "Tracking and Tracing Technology in Upholding Halal Product Integrity: A Review," in Technologies and Trends in the Halal Industry, Routledge, 2023.
[40]D. Egorov, A. Levina, S. Kalyazina, P. Schuur, and B. Gerrits, "The Challenges of the Logistics Industry in the Era of Digital Transformation," in Technological Transformation: A New Role For Human, Machines And Management, H. Schaumburg, V. Korablev, and L. Ungvari, Eds., Cham: Springer International Publishing, 2021, pp. 201–209. doi: 10.1007/978-3-030-64430-7_17.
[41]G. Gereffi, "What does the COVID-19 pandemic teach us about global value chains? The case of medical supplies," Journal of International Business Policy, vol. 3, no. 3, pp. 287–301, 2020, doi: 10.1057/s42214-020-00062-w.
[42]G. Hashem, "Adopting Industry 4.0 through absorptive capacity and innovation ambidexterity with the moderation of learning capability," Business Process Management Journal, vol. 30, no. 6, pp. 1995–2024, Jun. 2024, doi: 10.1108/BPMJ-12-2023-0939.
[43]J. B. Barney, D. J. Ketchen Jr, and M. Wright, "The future of resource-based theory: revitalization or decline?," Journal of management, vol. 37, no. 5, pp. 1299–1315, 2011.