




# JOURNAL OF RESILIENT ECONOMIES

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## Halal Supply Chain Competencies: A Framework for Human Capability Development

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### Abstract

The global Halal industry is governed by Islamic ethical principles and dietary laws, which require a specialized workforce equipped with unique competencies (Abderahman et al., 2021). The Halal supply chain's complexity arises from, cultural and religious sensitivities, specific regulatory frameworks, transparency demands, sourcing challenges, logistical intricacies, rigorous certification, consumer preferences, market dynamics, risk management and the need for ongoing innovation. Navigating these multiple complexities is vital for maintaining resilience in the global Halal supply chain whilst meeting consumer expectations. This paper presents a formative framework for human capability development with regard to the Halal supply chain, with a special focus on ensuring its resilience. In recognizing the multifaceted challenges faced by individuals operating in the sector, directly and indirectly, the proposed harmonised framework offers a structured approach to Halal supply chain competency development (De Boni & Forleo, 2019). The framework comprises four key dimensions that deal with aspects of (i) Assurance, (ii) Socio-Cultural and Ethical (iii) Technical and Operational, and (iv) Market-Related. Organizations can potentially employ this framework to design training programs, assess their current capabilities and strategically develop their human resources, thereby ensuring the Halal supply chain can build resilience while delivering high-quality assured products to a global consumer base ensuring sustainable growth and prosperity, without compromising Islamic principles (Yaacob et al., 2018).

**Keywords:** Halal Supply Chain; Human Capability Development; Supply Chain Resilience; Capability Framework

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Journal of Resilient Economies (JRE) publishes original research with a multidisciplinary focus to further advance the important concept of resilience. JRE is fully supported by James Cook University Open Journal Systems (OJS), driven by the belief that knowledge has the power to change lives, and that research outputs should be freely accessible online, without barriers. To cite, include Author(s), Title, Journal of Resilient Economies, volume, issue, year and DOI.

DOI: <https://doi.org/10.25120/jre.3.2.2023.4021>

## 1. Introduction

The Halal supply chain, governed by Islamic ethical principles, functions as a complex global network encompassing diverse products, ranging from food and beverages to cosmetics and pharmaceuticals (Elasrag, 2016, 2022; Fischer, 2015). Despite its religious, historical and cultural significance, this supply chain continually confronts multiple vulnerabilities, including the application of regulations, fluctuations in the market and unexpected disruptions. Moreover, the economic importance of the Halal marketplace should not be underestimated, with its estimated worth anticipated to reach USD\$2.3 trillion to meet the demands of 1.7 billion Muslim consumers (Ahmad Nizar et al., 2022). It is also recognised that Halal logistics services are somewhat different to conventional supply chain and logistics services in that customised solutions are required to ensure compliance within a dynamic, fast-moving environment (Noorliza, 2021, 2022). Maman et al. (2018) identify a strong correlation exists between the implementation of resilient supply chain practices and both business performance and sustainability (Maman et al., 2018).

In order to ensure sustainable growth and prosperity as well as provide ongoing customer confidence in this intricate milieu, the importance of building resilience cannot be understated. Resilience within the Halal supply chain pertains to its capacity to endure, adapt to and recover from disruptions, while consistently delivering products that adhere to Halal standards (Yaacob et al., 2018; Yaacob et al., 2023). It is noted that this resilience must extend beyond the realm of systems and procedures to encompass the competencies possessed by the workforce within the supply chain (Voak & Fairman, 2021). Building resilience in the Halal supply chain through human capability and competency development is pivotal (Voak, 2021). This entails equipping the workforce within the Halal supply chain with the requisite skills, knowledge, and attitudes to adeptly and respectfully navigate challenges and disruptions (Abderahman et al., 2021; Hashim & Shariff, 2016; Song et al., 2022).

It is claimed that developing competencies associated with Halal regulations and standards is crucial in ensuring consistent adherence to Halal requirements, even amidst evolving political landscapes (Abd Rahman et al., 2023; Noorliza, 2021). Equally crucial in this respect, is the provision of training to employees in crisis management and response strategies, enabling the supply chain to respond promptly and effectively to unforeseen events such as product recalls or food safety concerns (Chammem et al., 2018). Moreover, enhancing competencies in supply chain visibility technologies contributes to improved traceability

of Halal products, thereby ensuring transparency and rapid issue identification (Mohamed et al., 2016; Zainuddin et al., 2020). Building resilient economies requires nurturing an ethical mindset that will play a central role in upholding the principles of Halal production and distribution (Fauzi et al., 2021).

Developing competencies within the Halal supply chain also encompasses acquiring a comprehensive understanding of Halal standards and compliance, including compliance with various international regulations (Borhan et al., 2023). The development of a specialised capability framework underscores the importance of upholding Islamic traditions and principles throughout supply chain activities (Kadir et al., 2016), particularly when the supply chain must cross non-Islamic borders. In addition, proficiency and respect for technical practices assume a vital role in the identification, evaluation, and management of Halal ingredients and processes (Karia et al., 2015). Building resilient economies requires relational resources and the establishment of globally shared competencies including (i) effective cross-cultural communication, (ii) adept management of global logistics and (iii) a deep comprehension of market dynamics and their relationship to economic sustainability (Karia et al., 2015; Voak & Fairman, 2020b). Further, Borhan et al. (2023) opine that the key element in ensuring the strength, global competitiveness, and expandability of Halal businesses is the presence of proficient Halal expertise within the supply ecosystem.

Enhancing the capabilities of individuals within the Halal supply chain, coupled with focused competency development, empowers the workforce to appropriately address unexpected challenges and disruptions. This capability leads to heightened adaptability and resilience within the supply chain, ensuring the preservation of Halal product integrity and the fulfilment of consumer expectations, even in the face of challenging circumstances. This paper explores the potential for an innovative and adaptable human capability development framework designed to build resilience in the Halal supply chain. The overarching purpose of which is to gain a deeper understanding of how the nurturing of competencies among individuals operating within specialized supply chains may better contribute to their long-term sustainability. These competencies encompass regulatory expertise, crisis management proficiency, cross-cultural communication acumen, technical prowess, networking and collaboration skills amongst suppliers and more. By investing in the enhancement of these capabilities, organizations engaged in the Halal supply chain can proactively address challenges, safeguard product integrity, and consistently meet the

expectations of a discerning and demanding global consumer base.

## 2. Literature Review

### 2.1 Supply Chain Resilience

Supply Chain Resilience pertains to an organization's capacity to endure and adapt to unexpected challenges and disruptions within its supply chain while maintaining or swiftly restoring its regular operations without compromising its quality (Adobor & McMullen, 2018; Ponomarov & Holcomb, 2009). This aspect is integral to effective supply chain management, as it serves to mitigate risks and ensure business continuity in the face of multiple and diverse threats, including natural disasters, geopolitical uncertainties, supply chain interruptions and economic oscillations (Shishodia et al., 2023). A critical facet of supply chain resilience involves redundancy and diversification (Christopher & Peck, 2004). This strategy requires the establishment of alternative suppliers, transportation routes and production facilities designed to mitigate the impact of disruptions in any single economic sector. For example, a company may procure vital components from multiple suppliers or maintain safety stock to reduce vulnerability to supply interruptions (Christopher & Peck, 2004). Ivanov and Dolgui (2021) opine that another key component is supply chain visibility. Organizations require real-time insights into their supply chain's status, encompassing inventory and shipment locations, demand fluctuations and potential disruptions (Ivanov & Dolgui, 2021; Ivanov et al., 2019). In this regard, advanced technologies like the Internet of Things (IoT), Radio Frequency Identification (RFID), QR-Codes, and Blockchain have significantly contributed to augmenting supply chain visibility (Ali et al., 2021; Borhan et al., 2023; Rohmah et al., 2019; Shuib et al., 2021; Tan et al., 2022).

Effective collaboration and communication within the supply chain network also assume paramount importance (Pettit et al., 2013; Pettit et al., 2010). Cultivating robust relationships with suppliers, customers, and logistics partners facilitates the exchange of information and resources in times of disruption, enhancing decision-making capabilities during an economic crisis. This concept of supply chain resilience is an evolving concept, necessitating continuous evaluation and enhancement (Sheffi, 2005). Organizations must conduct risk assessments, scenario planning and routine stress tests to pinpoint vulnerabilities and formulate resilience strategies, and this requires a competent and skilled workforce.

### 2.2 Human Capability Development and Supply Chain Resilience

In the realm of modern supply chain management, the synergy between Supply Chain Resilience and Human Capability Development is unmistakable. An essential interdependency in this area lies in crisis management training and skill-building, where a resilient supply chain relies on the capabilities of its workforce (Mubarik et al., 2022; Nikookar & Yanadori, 2022). Equipping employees with the knowledge and skills to adeptly navigate disruptions is a practical and sustainable approach to ensure proactive and agile responses. Furthermore, the adaptability and problem-solving abilities of the employees which are inherent in resilient supply chains, are deeply rooted in the skills and expertise of the workforce. Employees must possess the capacity to make rapid decisions, improvise solutions and innovate when confronted with challenges (Ivanov et al., 2019). Human Capability Development is instrumental in nurturing these competencies, fostering a workforce ready to tackle unforeseen disruptions with resilience and creativity (Gu et al., 2023; Saeed et al., 2022). There are notable challenges associated with the development of new competencies in supply chains, which require encompassing knowledge, skills and attitudes that are aimed at upholding the integrity of Halal products and services during their exchange on a global scale (Voak & Fairman, 2021).

Furthermore, Human Capability Development extends to risk assessment and management, an essential aspect of supply chain resilience (Pettit et al., 2010). These competencies enable supply chain professionals to identify vulnerabilities and take proactive measures to effectively mitigate risks. This facet significantly enhances the overall resilience of the supply chain, as employees become adept at proactively addressing potential disruptions. In addition to risk management, achieving supply chain visibility, which is a fundamental component of resilience, often hinges on the capabilities of the workforce. Employees play a critical role in managing and interpreting data from various sources to gain insights into supply chain operations (Ivanov & Dolgui, 2019). As such, the interplay between Supply Chain Resilience and Human Capability Development underscores the significance of a well-equipped and skilled workforce in strengthening supply chains against disruptions and uncertainties, making it an essential consideration in contemporary supply chain management.

### **2.3 Halal Supply Chain Capability**

#### **Development**

Adherence to dietary laws and ethical principles underpin the integrity of the Halal Supply Chain, and responding to these rigorous standards set out by Islamic jurisprudence is of paramount importance. This supply chain is driven by a commitment to providing consumers with Halal-compliant products, while simultaneously upholding the core principles of integrity, transparency and authenticity (Supian et al., 2019). A key foundational element revolves around the necessity for transparent and reliable Halal certification, a process that entails thorough examinations and validations of both ingredients, production procedures, transportation and stockpiling. This certification is secured through reputable Halal certification authorities, guaranteeing the authenticity of products as being genuinely Halal (Hidayati et al., 2023) and complying with Halal supply chain management.

Technology is increasingly playing a critical role in Halal supply chain management. Emerging technologies such as blockchain, IoT and AI have the potential to enhance the implementation of the framework, by building traceability and transparency into the Halal supply chain. Blockchain technology offers an immutable and transparent ledger for comprehensive product tracking. Internet of Things (IoT) devices, including RFID and sensors, monitor various aspects of product conditions and supply chain efficiency in real-time. Artificial intelligence and big data analytics assist with predictive maintenance, demand forecasting, and quality control. Mobile apps enable consumers to verify Halal certification and swiftly access product information. Augmented reality, drones, and biometric authentication enhance security, inspections, and compliance. These technological advancements contribute to the integrity of Halal products by ensuring transparency, quality, and adherence to Halal standards throughout the supply chain (Ivanov et al., 2019).

Ethical considerations within Halal supply chain management remain a challenge, focusing on fair labour practices and sustainable sourcing, which align with Islamic principles (Tieman & Che Ghazali, 2013). Crisis management and resilience strategies are developed to address unexpected disruptions while consistently maintaining Halal compliance (Yaacob et al., 2023). As the Halal supply chain operates on the principles of Halal integrity, transparency and ethical sourcing, these practices are underpinned by stringent certification processes, advanced traceability technologies and crisis management strategies to ensure the transparent provision of Halal-

compliant products to a discerning global consumer base (Ruangsriroj & Suvittawatt, 2022).

Halal supply chain compliance hinges on a foundation of trust, encompassing the belief that all participants in the supply chain are committed to upholding product hygiene, cleanliness, safety and wholesomeness from the source to consumption (Ab Talib et al., 2015). This responsibility for Halal supply chain compliance extends beyond regulatory bodies, certifiers and quality assurance entities (Tieman, 2017; Tieman et al., 2012). It entails a fundamental dedication to aligning product, communication and financial practices with the principles of Shariah Law. In embracing this commitment, there are distinct challenges and opportunities for Human Resource Development (HRD) aimed at equipping all supply chain participants with the requisite skills, knowledge and attitudes to safeguard and sustain trust and respect (Voak & Fairman, 2021). That said, there are weaknesses in the global supply chains as they can be susceptible to vulnerabilities that may be exploited, leading to deliberate deceit or unintentional cross-contamination of food products intended for devout Muslim consumers (Voak, 2021). Further, recent studies have confirmed the value of human capability development initiatives in building knowledge and creating new insights and perspectives (Ahmad Nizar et al., 2022).

Human capability development is essential for ensuring Halal supply chain compliance and maintaining brand claims that align with the expectations of both Muslim and non-Muslim consumers. The ever-increasing complexity of global supply chains, coupled with the interconnectedness of actors at each phase, underscores the significance of investing considerable effort and resources in comprehending the management of human actors within this intricate process. The human element emerges as a significant component of the compliance puzzle, not only in meeting Halal's regulatory and certification demands but also in establishing a culture of respect among all stakeholders, which is crucial for upholding trust within the system.

Assessing the effectiveness of human capability development framework initiatives demands a methodical approach to gauge their influence and impact on individuals, the organization, and the broader Halal supply chain. Establishing specific Key Performance Indicators (KPIs) such as adherence to Halal standards, heightened productivity, risk identification, and employee contentment contributes significantly to improvements in measuring and evaluating Halal supply chain resilience. Essential to this process is the evaluation of employees' skills before and after participating in capability development programs, providing

valuable insights into the advancement of competencies crucial for proficient Halal supply chain management.

Performance appraisals, feedback from training programs, and surveys assessing employee satisfaction are indispensable tools for measuring the impact of these initiatives on individual job performance and contentment. The effectiveness of the Halal supply chain in terms of efficiency and productivity can be gauged through a variety of operational metrics encompassing factors like; cycle times, error rates, and overall process enhancements. Moreover, feedback from customers and suppliers can illuminate the improvements in product quality, consistency, and dependability within the Halal supply chain. Financial aspects, including cost reduction and avoidance achieved through enhanced quality control and reduced wastage, represent critical indicators. By monitoring employee retention rates, organizations can assess the influence of training and development on job satisfaction and staff retention. Comparison with industry benchmarks and best practices is also an effective means of identifying areas for further improvement. Finally, calculating the return on investment (ROI) offers a comprehensive perspective on the advantages and advancements stemming from these capability development initiatives, balanced against their associated cost.

### 3. Proposed Capability Framework

A capability framework is a methodical system for delineating, evaluating and nurturing the proficiencies, expertise, capabilities and conduct necessary for achieving effective outcomes in a specific job position or within an organizational context (Midhat Ali et al., 2021). A framework serves as a reference guide for defining, assessing and developing these competencies, ultimately helping individuals and the organization achieve their goals (Campion et al., 2011; Fauzi et al., 2012; Rosli et al., 2022). Designing a framework involves a systematic process to define the skills, knowledge, abilities and behaviours required for successfully discharging responsibilities. This iterative process requires collaboration, feedback and adaptability to meet the evolving needs of the organization and its workforce. It is also acknowledged that having a global pool of skilled human resources capable of fostering knowledge and expertise is of utmost importance to ensuring a Halal supply chain's integrity (Hashim & Shariff, 2016). Additionally, developing a capability framework for the Halal supply chain recognises the importance of human capability development to ensure talent retention in an increasingly competitive and challenging global marketplace (Hamid et al., 2014).

For this study, an extensive review of Halal supply chain literature was conducted. This evaluation was used to identify consistent and reoccurring themes, which have been synthesised into a capability framework. The investigators acknowledge that this paper promulgates the initial phase of development, but also recognise that it is a necessary first step, so the next phase of validation can be undertaken. We are also acutely aware that a 'Halal supply chain competency framework' is a structured model or set of guidelines that outlines the specific skills, knowledge and attitudes required for the effective management and operation of a supply chain that adheres to Halal principles and standards. The proposed framework encompasses competencies related to ensuring the entire supply chain from sourcing and production to distribution and certification, and meets all the requirements for Halal certification and compliance. This capability framework (as depicted in Figure 1) would help organizations and individuals involved in the Halal supply chain understand and develop the necessary expertise to maintain the integrity of Halal products throughout the supply chain. These key components work in harmony to create a robust and ethical Halal supply chain, accommodating the needs of Halal-conscious consumers while upholding the integrity of Halal products throughout the production and distribution process (Elasrag, 2022; Marzuki & Yahya, 2020).

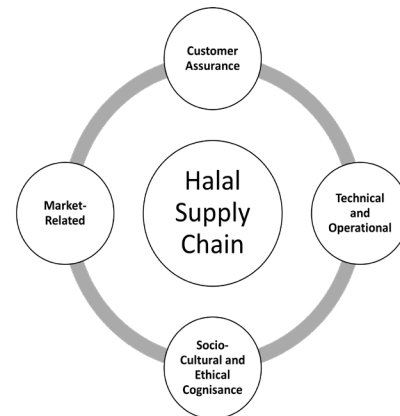


Figure 1: Halal Supply Chain Capability Framework

#### 3.1 Elements of the Capability Framework

##### 3.1.1 Assurance

Ali et al. (2013) opine that to meet Halal Standards, Regulations and Certification, a thorough understanding of Halal standards, encompassing diverse global requirements, is essential. Additionally, collaborating with recognized

Halal certification bodies is an essential step for verifying compliance and gaining credibility within the Halal supply chain. There needs to be a high level of regulatory mastery, which human resources proficient in complying with evolving domestic and international regulations and, more broadly the full commitment from management and the broader supply chain workforce to implement and abide by these protocols (Wahab & Kamarubahrin, 2019). This is an essential step for maintaining compliance and staying up-to-date with evolving domestic and international regulations related to Halal products since it is crucial to remain constantly compliant in order to avoid legal constraints. In this regard, risk assessment and mitigation competencies can aid in pro-active mitigation in the development of supply chain resilience (Pettit et al., 2010; Tieman, 2017; Tieman et al., 2012; Wahyuni et al., 2020). Robust and transparent quality assurance and control measures are essential in guaranteeing the ongoing consistency and quality of Halal products, and as such, a strict dependency on quality assurance and control is required (Pahim et al., 2012; Tieman et al., 2012), including regular inspections and audits (Wahyuni et al., 2020). Further, the development of a capability framework should be in lock-step with attempts to harmonise Halal assurance programs regionally and globally. The current disparate nature of systems and regulation by jurisdictional specialist institutions places unique challenges on the Halal supply chain. As countries begin to open discussions around potential cooperation, human capability development initiatives must be at the forefront of their minds. To illustrate this challenge, Halal assurance in Indonesia is managed by the Halal Product Guarantee Executive Agency (BPJPH), in Malaysia by the Department of Islamic Development and in Singapore by the Islamic Religious Council of Singapore however harmonisation is yet to be realised within the ASEAN trading bloc of which Indonesia, Malaysia and Singapore are members. Additionally, countries like Indonesia are using Halal assurance mechanisms as economic indicators for economic growth, a challenge in itself.

### *3.1.2 Socio-Cultural and Ethical*

The underpinning requirement of a Halal food chain is the notion of cultural sensitivity, where the respectful and constant adherence to Islamic ethical principles in all aspects of production and distribution is rigorously observed (Tieman & Ghazali, 2014). In this regard, obedience to customs and religious values are crucial practice -in respecting and adhering to Halal principles (Bonne & Verbeke, 2008). This issue is becoming increasingly difficult to maintain, particularly in the face of growing global markets and wider areas of product sourcing. The requirement for competent cross-cultural communication skills, detailed knowledge of global logistics,

and a working understanding of market dynamics is an increasing prerequisite in this area (Wilson & Liu, 2011). It is clearly understood that adhering to ethical principles in all supply chain activities, including fair labour practices, sustainable product sourcing, and vigilant transportation and storage practices is vital to maintaining the Halal supply chain's integrity.

In robust and resilient economies, innovative strategies are needed to build competent cross-cultural skills. This is not a new phenomenon as resilient economies respond to the ever-increasing demands for flexibility in climate resilience, international supply chain disturbances, war and other catastrophes. Ethical principles in the supply chain are at the centre of these challenges and must address these concerns in a similar way (Chandra et al., 2019; Khan et al., 2018).

### *3.1.3 Technical and Operational*

The implementation of strict production and manufacturing capabilities that respect Halal-compliant practices is vital to maintaining the ethical integrity of products (Ahmad Nizar et al., 2022; Borhan et al., 2023; Hashim et al., 2016; Hashim & Shariff, 2016). This is a skilled activity that includes continuous segregation of Halal and non-Halal items to prevent cross-contamination. To meet these strict demands, significant technical expertise is needed to identify, evaluate and manage Halal ingredients' sequestering and processes effectively (Ahmad Nizar et al., 2022; Borhan et al., 2023). Clearly, in this carefully controlled process, logistics and distribution of materials are essential. Special attention must be given to the logistics and processes of distribution to prevent contamination during transportation and storage where Halal products must be clearly labelled and segregated from non-Halal items. To assist in this requirement, supply chain visibility is paramount, and competency in managing and interpreting data from various sources to gain insights into supply chain operations is needed including further investigation into how Artificial Intelligence (AI) could be deployed (Ivanov & Dolgui, 2021; Ivanov et al., 2019; Kurniawati & Cakravastia, 2023; Nizar et al., 2023). This continual task of traceability and transparency is assisted by the implementation of modern traceability and transparency measures such as blockchain, which can ensure the visibility of meeting the standards required for Halal products throughout the supply chain (Chandra et al., 2019; Tan et al., 2022). This attention to supply chain resilience requires a deeper understanding and application of supply chain resilience strategies to effectively navigate any disruptions encountered in processing or transport (Ivanov & Dolgui, 2021; Ivanov et al., 2019).

### 3.1.4 Market-Related

There is a constant need for respectful communication and collaboration skills throughout the supply chain (Gunawan, 2020; Pettit et al., 2010), thus there is a demand to develop the ability to build and maintain strong relationships with Halal-certified suppliers (Yaacob et al., 2023). Such a system will ensure a consistent and guaranteed supply of compliant materials. Further, by providing open and honest communication involving all essential participants in the Halal supply chain will guarantee adherence to standards and the preservation of authenticity (Yaacob et al., 2023). To maintain these relationships in a complex global marketplace, there is a need for skills appropriate for crisis management and to have a suite of ready response strategies including the breaking down of communication barriers which can react swiftly and effectively to unexpected events (Hashim et al., 2016; Hashim & Shariff, 2016). In addition, there is also a need for innovation and continuous improvement in the supply chain to adapt and thrive in a dynamic complex environment (Sheffi, 2005). An equally important concern in this regard is the need for continual education of consumers about the Halal status of products, which can be done through clear labelling and transparent production processes. This emphasis on marketing efforts is becoming increasingly important to cater to the demands of a growing Halal-conscious consumer base.

## 4. Potential Barriers and Challenges to Framework Implementation

The authors recognise that the implementation of a global capability development framework presents a multitude of obstacles and challenges that encompass a wide range of issues, from managing cultural disparities and language barriers to adhering to global regulations and the intricacies of international logistics. Effective navigation through this landscape necessitates a dedicated commitment to adaptability and a heightened awareness of how disparities in skills, technological access, and resistance to change can influence the process. Striking the right balance between standardization and customization, while addressing persistent concerns such as financial constraints, data security, and competing priorities, calls for a meticulously structured approach.

Nonetheless, the potential advantages of a well-executed global capability development framework are considerable. It holds the potential to streamline skill enhancement and the sharing of knowledge across international borders, cultivate a shared global identity, and promote a more unified and competitive organization. A journey that demands a forward-thinking mindset and a

readiness to surmount these intricacies as they materialize, ensuring that the framework harmonizes with the global objectives and aspirations of the organization.

Given the global interconnectedness of Halal supply chains, all stakeholders must embrace the evolving nature of an adaptable and agile framework. The framework will be required to contextualise and adapt to cultural, regulatory, regional and or market nuances. The authors recognise that the framework needs to be continuously updated and reshaped particularly as regulatory landscapes evolve. Further, to sustain a flexible human capability framework, organizations need to periodically assess and revise, adopt adaptable capability definitions, incorporate modular training, create mechanisms for feedback, harness technology for educational purposes, promote interdisciplinary cooperation, cultivate a culture of perpetual learning and secure robust leadership endorsement. Effective communication, data-informed decision-making, and cooperation with external stakeholders are also imperative for adjusting the framework to meet evolving organizational and industry demands while maintaining agility and alignment with changing capability requirements.

## 5. Concluding Remarks

The management of a global supply chain in the current expanding market environment comes with several challenges. Firstly, there are logistical obstacles such as the need to coordinate transportation, navigate customs regulations, and handle lengthy transit times, all of which can result in delays and increased expenses. Secondly, disparities in culture and language can affect communication and relationships with international partners. Thirdly, the instability stemming from geopolitical factors and economic fluctuations disrupt supply chain operations. War and trade disputes and currency volatility add to the difficulty of ensuring compliance with diverse local regulations, quality standards, and ethical guidelines which all represent complex challenges. Moreover, addressing environmental and sustainability concerns necessitates responsible sourcing and environmentally friendly practices, in addition to introducing an ethical dimension to global supply chain management. Successfully tackling these multifaceted challenges demands strategic planning, robust risk management, and adaptability to navigate the constantly evolving global landscape.

This paper aims to make several contributions including, the strong argument for more focused efforts in aligning competency requirements for human capabilities within an increasingly interdependent global Halal supply chain and further highlighting the urgency around its

establishment to combat the growing challenges around securing and retaining talent. To successfully address these common challenges, businesses and organizations involved in the Halal supply chain must invest in comprehensive training programs and aim to harmonise Halal management systems (Robbani & Sahid, 2021) and promote cultural sensitivity and respect in the workforce (Voak & Fairman, 2021), stay up-to-date with evolving regulations, and foster collaboration with experts in Halal certification and compliance (Voak & Fairman, 2020a). In addition, industry associations and government bodies can play a role in providing guidance and support for human capability development in the Halal supply chain. The beginnings of a Halal supply chain Competency Framework proposed in this paper, which consists of Assurance, Cultural and Ethical Observance, Technical Capabilities and Market-Related Concerns, may provide a suitable lens for interpreting these challenges. Whilst the authors acknowledge that this framework is derived from an in-depth study of extant literature, we believe that this is a valuable first step in building a cross-border harmonised approach to ensuring greater Halal supply chain integrity, resilience and security. The authors intend to validate this framework across ASEAN, to better understand the challenges and opportunities inherent in the Halal supply chain, with a view to better equipping Islamic and non-Islamic stakeholders in their important role in building trust and security in the Halal supply chain.



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