Unlocking Sustainable Competitive Advantage through Halal Supply Chain: A Systematic Literature Review

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Abstract. The halal supply chain (HSC) is increasingly recognized as a strategic system for achieving sustainable competitive advantage in developing countries. This study employs a Systematic Literature Review (SLR) based on the PRISMA framework to synthesize 45 peer reviewed articles published between 2020 and 2025. The findings indicate that HSC contributes to competitiveness through five key mechanisms: trust building, operational efficiency, market differentiation, socio-economic transformation, and organizational resilience. However, these benefits are largely capability mediated rather than driven by compliance alone. In particular, digital technologies such as blockchain and IoT enhance transparency and traceability, yet their impact remains constrained by high implementation costs, data privacy concerns, and limited organizational readiness, especially among SMEs. This study contributes by integrating fragmented insights into a coherent framework that links internal capabilities, digital transformation, and external institutional pressures. The results suggest that effective HSC implementation requires alignment between technological adoption, organizational capacity, and the broader regulatory environment. Practically, firms should prioritize capability development before investing in advanced digital systems, while policymakers should provide supportive ecosystems to facilitate adoption. These findings offer a more contextualized understanding of HSC as a strategic mechanism for competitive positioning in emerging economies.

Keywords: Developing Countries, Halal Supply Chain, PRISMA, Sustainable Competitive Advantage, Systematic Literature Review

1 Introduction

The halal industry has emerged as a significant economic force, particularly in developing countries, driven by increasing global demand for ethical, hygienic, and traceable products. Within this context, Halal Supply Chain (HSC) practices are not only essential for ensuring Sharia compliance but also play a strategic role in gener-ating sustainable competitive advantage through enhanced consumer trust, opera-tional efficiency, and market differentiation [1], [2].

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Existing literature has examined various dimensions of HSC, including certifica-tion, halal logistics, and the integration of digital technologies. However, these stud-ies tend to be fragmented, with some focusing primarily on internal organizational aspects such as procurement and quality control, while others emphasize external drivers such as regulatory frameworks and digital readiness. As a result, a comprehen-sive and integrated understanding of how HSC practices collectively contribute to long term strategic advantage remains limited, particularly in the context of develop-ing countries [3], [4].

Moreover, prior studies have explored related constructs such as the mediating role of competitive advantage in organizational performance, supplier connectivity, and organizational readiness [5], [6]. Nevertheless, these studies have not explicitly addressed how HSC practices directly shape competitive advantage through the in-teraction of internal capabilities and external environmental factors. This indicates a critical gap in the literature, especially in developing a holistic framework that cap-tures both dimensions simultaneously [7].

In parallel, advancements in digital technologies such as blockchain, the Internet of Things (IoT), and digital tracking systems have introduced new opportunities to enhance transparency and traceability within halal supply chains. Despite this poten-tial, existing empirical studies predominantly rely on survey and case study ap-proaches, which may be subject to methodological limitations such as endogeneity bias and limited generalizability. Consequently, there is a need for a more systemat-ics and integrative approach to synthesize existing findings and provide a clearer understanding of the field.

This study addresses these gaps by employing a Systematic Literature Review (SLR) based on the PRISMA framework to analyze scholarly articles published be-tween 2020 and 2025. The study aims to provide a comprehensive synthesis of how HSC practices contribute to sustainable competitive advantage in developing coun-tries, while also identifying key internal and external drivers, prevailing theoretical perspectives, and emerging research directions. By doing so, this study contributes to the literature by offering a more integrated and structured understanding of HSC as a strategic mechanism for competitive positioning.

2 Methods

This study employs a Systematic Literature Review (SLR) following the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) guidelines to ensure a transparent and replicable research process. The literature was collected from the Scopus database, selected due to its comprehensive coverage of peer reviewed academic publications. The search was limited to articles published between 2020 and 2025, written in English, and focused on halal supply chain (HSC) practices in developing countries.

The search strategy applied Boolean combinations of keywords, including “halal supply chain,” “competitive advantage,” “sustainability,” and “developing coun-tries,” across titles, abstracts, and keywords. The selection process followed PRISMA stages,

including identification, screening, eligibility, and inclusion, resulting in a final sample of relevant studies.

Thematic analysis was conducted to systematically synthesize the selected articles. This process involved coding the literature, identifying recurring patterns, and grouping findings into key themes related to HSC practices, competitive advantage, and influencing factors. The analysis focused on four main dimensions: (1) internal and external drivers of HSC adoption, (2) strategic practices and capabilities, (3) performance outcomes and sustainability indicators, and (4) emerging research gaps.

Despite its systematic approach, this study has several limitations. First, the reli-ance on the Scopus database may exclude relevant studies indexed in other data bases. Second, the inclusion of only English language publications may introduce language bias. Third, the SLR method depends on the availability and quality of existing studies, which may affect the comprehensiveness of the synthesis.

3 Results and Discussion

This review synthesizes 45 articles (2020 – 2024) on halal supply chains (HSC) and competitiveness in developing countries. A subset explicitly links HSC practices to competitive advantage, offering focused insights

3.1 RQ1: Contribution of HSC Practices to Competitive Advantage

HSC practices generate competitive advantage through five mechanisms. First, halal certification strengthens consumer trust and brand credibility [8]. Second, efficiency and traceability improve through digital tracking and blockchain systems [9], [10]. Third, halal branding supports market differentiation aligned with ethical and reli-gious values [11]. Fourth, HSC enables socio-economic transformation, especially for SMEs [12]. Finally, sustainability-driven practices enhance resilience in crisis con-texts [13].

3.2 RQ2: Factors Influencing HSC Adoption

HSC adoption is driven by internal and external factors. Internally, organizational readiness, innovation, and perceived value shape adoption, with stronger capabilities enabling more effective implementation [14], [10]. Externally, regulation, market demand, and institutional pressures encourage adoption [9], [15], [16]. However, high certification costs, limited awareness, and administrative complexity constrain SMEs [8], while data privacy and system compatibility issues hinder digital adoption [17].

3.3 RQ3: Indicators of HSC Implementation Success and Performance Impact

HSC success is reflected in key performance indicators. Traceability ensures compliance and improves efficiency [9]. Certification positively affects financial and operational performance [15], while effectiveness depends on organizational readiness and cost efficiency [10]. Lean and agile capabilities strengthen supply chain performance [13], and strategic alignment is essential for optimal outcomes [16]. Supporting prac-

tices such as TQM and risk management further enhance long-term performance [17], [18].

3.4 RQ4: Role of Digital Transformation in the Halal Ecosystem

Digital transformation enhances HSC efficiency and competitiveness. Blockchain improves transparency but faces adoption barriers among SMEs due to cost and tech-nical limitations [11]. Digital platforms expand market access and strengthen brand performance[19], while consumer alignment with trust and preferences remains criti-cal [20]. Halal branding strategies further support positioning [11].

3.5 RQ5: Internal and External Drivers of HSC Implementation

HSC implementation depends on the interaction between internal and external drivers. Internal capabilities, integrity, and entrepreneurial orientation support readiness [21], [9], while social norms, religiosity, and market expectations shape demand and trust [20], [11]. Technological and regulatory challenges, particularly data privacy and system complexity, affect implementation effectiveness [17]

This study shows that halal supply chain (HSC) practices contribute to competitive advantage primarily through capability-driven mechanisms rather than compliance alone. Trust, efficiency, and differentiation emerge when HSC implementation is aligned with organizational readiness and strategic objectives, indicating that HSC functions as a strategic system rather than a purely regulatory requirement.

Digitalization plays a central but conditional role. Technologies such as block-chain and traceability systems enhance transparency and process control [9], [10], yet their effectiveness depends on cost feasibility and organizational capability. In many SMEs, high implementation costs, limited technical expertise, and data privacy con-cerns restrict adoption, highlighting a gap between technological potential and prac-tical implementation [17].

The findings also reveal a tension between internal readiness and external pres-sures. Regulatory demands and market expectations encourage HSC adoption [9], [15], [16], but firms with limited internal capabilities struggle to respond effectively. This suggests that competitive advantage depends on the alignment between internal resources and external conditions.

In international terms, SMEs in developing contexts face greater barriers than those in more advanced environments. Evidence from contexts such as India and Taiwan show uneven adoption due to infrastructure and organizational constraints [10], [14]. Compared to these settings, firms in less developed ecosystems encounter stronger limitations in integrating digital systems and complying with regulatory requirements.

Theoretically, this study positions HSC as a capability base system shaped by the interaction of digitalization and institutional forces. Practically, firms should priori-tize capability development and digital readiness before adopting advanced tech-nologies, while policymakers should support adoption through clearer regulations and technical assistance. Overall, effective HSC implementation requires alignment between technology, organizational capacity, and the institutional environment.

4 Conclusion

This study shows that halal supply chain (HSC) practices generate sustainable competitive advantage through capability-driven mechanisms rather than compliance alone. Trust, operational efficiency, market differentiation, and resilience emerge when HSC implementation aligns with organizational readiness. Digitalization en-hances transparency and traceability, but its impact depends on organizational capa-bility and cost feasibility. This highlights the need to align technological adoption with internal capacity. This study is limited by database scope and language selec-tion; future research should expand datasets and contexts.

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