HALALSPHERE
International Islamic University Malaysia - INHART

The Impacts of Supply Chain Integration on Halal SMEs Supply Chain Performance: the Mediating Role of Innovativeness

Showole Rafiu Kunle* & Haruna Babatunde Jaiyeoba

International Institute for Halal Research and Training (INHART), Level 3, KICT Building, International Islamic University Malaysia (IIUM), Jalan Gombak, 53100 Kuala Lumpur, Malaysia.
*Corresponding author: E-mail address: showole.rk@live.iium.edu.my

Received: 10/7/2023
Accepted: 1/8/2023
Published: 31/1/2024

Keywords:
Supply chain integration; Innovativeness; Supply chain performance; Halal SMEs

Abstract

This paper proposed a new conceptual framework for examining the impact of halal SMEs' Supply Chain Integration (SCI) on their Supply Chain Performances (SCP). In the model, SCI positively impacts the SCP of halal SMEs, while innovativeness mediates the effect. There is little research on halal SMEs' innovativeness and supply chain integration in Asia or Malaysia. This conceptual paper is unique for introducing innovativeness into studying the relationship between halal SMEs' SCI and their SCP. Since COVID-19-induced supply chain disruptions emerged, SCI has increasingly attracted attention as an integrated business strategy for achieving business supply chain performance, competitiveness, and sustainability. Also, considering the crucial roles of Malaysian halal SMEs in the country's economic development and the increase in demand for halal products worldwide, appropriate utilisation of innovativeness and SCI must be examined to achieve their supply chain performance. Bearing all this in mind, the researchers have proposed this framework. After reviewing the literature and citing relevant studies conducted on the subject matter, a tentative research agenda and directions for future studies are suggested. This aims to achieve efficient and competitive Supply Chain Performance (SCP) for halal SMEs through Supply Chain Integration (SCI) with effective interactions and innovativeness.

1. Introduction

Supply Chain Integration (SCI) has been established as critical to the Supply Chain Performance (SCP) of SMEs in ensuring sustainable competitive advantage and effective responses to strategic, operational, and technological challenges (Birhanu *et al.*, 2022; Jagan Mohan Reddy *et al.*, 2019; Kalyar *et al.*, 2020). However, despite its significance in boosting SMEs' competitiveness and resilience, implementing SCI has become a big challenge for small businesses (Chin *et al.*, 2012; Hakim *et al.*, 2018; Palomero & Chalmeta, 2014). Undoubtedly, SCI awareness as an element in supply chain management has increased, but its application in SMEs is rarely understood or explored in academia and industry (Hakim *et al.*, 2018; Msimangira & Venkatraman, 2014; Qurtubi & Kusrini, 2018). Also, according to Gonen (2022), the academic literature on halal supply chain and logistics is new, considering that studies focusing on these areas started in the last decade. For these reasons and many more, SCI relationships and their impacts on supply chain performance have attracted considerable attention in academia and industry across various economies (Kalyar *et al.*, 2020).

In addition, establishments are progressively realising that their capacity to innovate (innovativeness) is essential to their successes, resiliencies, performances, and long-term survival (Claudino *et al.*, 2017; Kalyar *et al.*, 2020; Kim & Chai, 2017; Rampersad *et al.*, 2020). However, there is a dearth of systemic analyses of SCI from an innovation perspective in emerging markets in the existing literature (Kalyar *et al.*, 2020). The concept is scarcely examined to ascertain its impacts on the supply chain performance of firms and halal SMEs, in particular through the mediation of innovativeness. More specifically, there is very few research on halal SMEs' innovativeness and supply chain integration in Asia or Malaysia, which is the context of this study (Qurtubi & Kusrini, 2018). The positive impacts of innovativeness on firm supply chain integration (SCI) and sustainable performance have been investigated and established empirically by works of literature (Espino-rodríguez & Taha, 2022; Walder *et al.*, 2019).

Considering their huge size and economic impacts, halal SMEs, like other SMEs, have a significant role in Malaysia's economic development. The contribution of halal SMEs to Malaysian economic development can be enhanced by boosting their supply chain performance with appropriate measures of SCI and innovativeness. Despite this, little or none is known to have been researched on the mediating role of innovativeness in the relationship between SCI and the supply chain performance of halal SMEs in Malaysia. Given the existence of empirical literature that has established the positive impacts of SCI and innovativeness on SCP, it is conceptualised by the researchers thus: SCI effectively and positively impacts halal SMEs' SCP, mostly when innovativeness mediates the relationship. Thus, we propose this conceptual framework where halal SMEs' innovativeness plays a mediating role in the relationship between the impacts of SCI on their SCP.

The conceptual framework of this paper is proposed by building on theories adopted in studies on innovativeness, SCI, supply chain performance, and related fields. Such theories include the Resource-Based View (RBV) of a firm, Dynamic Capability Theory (DCT), and Contingency Theory, which have been found suitable for research on innovativeness and supply chain integrations (Al-Habahbeh, 2022; Alraja *et al.*, 2022; Celtekligil & Adiguzel, 2019; Piprani *et al.*, 2020). As a dynamic capability, the resources of an enterprise, including its "innovation capability" (innovativeness), affect its ability to relate to external opportunities, increasing its innovation and performance (Celtekligil & Adiguzel, 2019). RBV is appropriate for developing supply chain strategy taxonomy and has been widely used in studies of SMEs' sustainability and competitive advantage (Alraja *et al.*, 2022; McKone-Sweet & Lee, 2009). SCI is an integrated and collaborative effort between suppliers and customers within a business (Flynn *et al.*, 2010; Hamdana *et al.*, 2022). Benefits accruing from inter-firm collaboration include increased knowledge creation capabilities, revenue enhancements, cost reductions, and operational flexibility to cope with high demand (Skippari *et al.*, 2017). Contingency theory (Lawrence and Lorsch, 1967; Thompson, 1967) argues that organisations should match their structures and processes to their environment to maximise performance, while customers and suppliers are regarded as an important part of a firm's environment (Flynn *et al.*, 2010). Significantly, these three theories are well connected and relevant to this study's three variables: supply chain integration, innovativeness, and performance.

In conclusion, this paper suggests examining the impacts of halal SMEs' SCI on their supply chain performance and how innovativeness mediates the relationship. This aims to improve halal SMEs' performance by developing a conceptual framework that illustrates this relationship, its impact, and its significance in the halal industry sector. The framework assumes that SCI has a positive relationship with the supply chain performance of halal SMEs when innovativeness mediates the relationship. The conceptual framework will provide impetus to conduct further empirical research on these variables and related ones that can aid SCI, innovativeness, and supply performance of halal SMEs, hence their competitiveness. It will also aid policymakers and other stakeholders in identifying specific potentials and enable the halal SMEs sector's environmental, human, and material resources required for its growth and sustainable performance. Also, despite the vast majority of firms worldwide being SMEs and providing 60–70% of the jobs in some countries, most studies on SCI focus mainly on large firms (Claudino *et al.*, 2017; Latifi *et al.*, 2021). The present conceptual study focuses on SMEs to remedy this research gap.

2. Literature review

The paper conducts a literature review on Supply Chain Integration (SCI), innovativeness, and Supply Chain Performances (SCP). The review explores these variables' definitions, types, significances, and benefits and their possible relationships. The authors draw insights and deductions from the reviewed literature to present a conceptual framework that defines the impacts of the three elements of halal SMEs' SCI on their SCP. The literature review also cites relevant studies conducted on the subject matter.

2.1 Supply Chain Integration (SCI)

Supply chain integration (SCI), the strategic collaboration between companies and their supply chain partners, has become increasingly critical (Hendijani & Saeidi Saei, 2020). This is due to SCI's crucial role in leveraging internal and external resources across the whole supply value chain, keeping the firm in the global market and improving firm performances and competitiveness (Birhanu *et al.*, 2022; Hendijani & Saeidi Saei, 2020; Jagan Mohan Reddy *et al.*, 2019). Internal integration, considered a forerunner of supply chain integration (Hakim, 2020), refers to integration processes within an organisation. External integration refers to inter-organisational collaboration, which primarily involves customers and suppliers and is hence classified into Customer Integration (CI) and Supplier Integration (SI) (Cao *et al.*, 2015).

Studies have shown that internal, product, and process integration positively affects a firm's operational and financial performance (Hendijani & Saeidi Saei, 2020). Also, works of literature have acknowledged that harmonising an organisation's interior and exterior environments positively impacts the performance of the businesses (Du *et al.*, 2022). These are due to the capacity of SCI to facilitate effective management, information dissemination, and physical flows along the supply chain (Kalyar *et al.*, 2020). For example, Supply chain (SC) networks can be characterised by uncertainty leading to inventory destabilisation, supply chain shock, or business mortality, as witnessed during the COVID-19 pandemic (Rozhkov *et al.*, 2020). SMEs, which often encounter uncertainty in the business environment and a high rate of competition (Hakim *et al.*, 2018), are also known to be more vulnerable to supply chain shocks than higher businesses (Adam & Alarifi, 2021; Du *et al.*, 2022; Sha *et al.*, 2020; Sonobe *et al.*, 2021; UNCTAD, 2022). Nevertheless, with the adoption of SCI, SMEs are better positioned to overcome these constraints by getting information on price and quality that will give them competitive advantages, having the capacity to predict the number of sales obtained through customer database, reduced operating cost which is vital in setting the final price; and increased efficiency through integrations of stakeholders final price (Hakim *et al.*, 2018).

Likewise, studies investigating the impacts of collaborative innovations on a firm's supply chain performance show a positive relationship between collaborations between organisations and innovative performance (Skippari *et al.*, 2017). It has been argued that to ensure the effective dissemination of innovations within existing systems, other players must access the advantages of existing innovations (Celtekligil & Adiguzel, 2019). This is viewed from the perspective that one firm's innovation may require other firms to innovate simultaneously; hence, firms may depend on counterparts' innovation ability in their supply chain network (Skippari *et al.*, 2017). According to Skippari *et al.* (2017), empirical results indicate that the more suppliers are involved, the more benefits to innovation and the firm's financial performance.

In addition, information sharing and collaboration in supply chain integration can reduce uncertain outcomes, enhancing sustainability performance (Wong *et al.*, 2020). Close collaborations and information exchange within and between companies aided by information systems are necessary to grow supply chain performance (Du *et al.*, 2022; Manzaneque-Lizano *et al.*, 2019). Impacts of external activities of an organisation, e.g., regulations imposed by environmental

bodies, are important parts of the supply chain that affect it and have become an important factor in environmentally friendly supply chain practices (Du *et al.*, 2022). According to Manzaneque-Lizano *et al.* (2019), it has been identified that business performance and sustainability are closely related to the capability to collaborate with stakeholders. This is because the business environment includes external parties to the company, including customers, other industry businesses, sellers, and government regulations that interfere with its operations (Du *et al.*, 2022). They also indicated that qualities exhibited by external forces, such as intricacy, lethargy, and generosity, are emphasised as part of external environmental aspects influencing firm performance.

2.2 Innovativeness

Two perspectives of innovativeness exist in the literature: innovativeness as the measurement of frequencies of innovations that are turned out and as the potential or propensity to innovate or innovative culture of an organisation based on its human capital, resource capability, etc. (Kalyar *et al.*, 2020; Kamaruddeen *et al.*, 2010; Seo *et al.*, 2014). Some studies define innovativeness as the rate and quality of usage of technology or new ideas by a firm compared to its competitors in order to gain competitive advantages in terms of cost, time, and value effectiveness (Du *et al.*, 2022; Kamaruddeen *et al.*, 2010). It refers to the capacity of a firm to innovate or influence its existing human resources, capabilities, strategy, marketing, and technological resources through innovation (Du *et al.*, 2022; Seo *et al.*, 2014). Some literature describes innovativeness as a firm's organisational characteristics, capability, and culture to transform opportunities into realities, which facilitates the implementation of innovations with the complement of adequate resources (Kalyar *et al.*, 2020; Seo *et al.*, 2014). According to them, innovativeness depends on the new knowledge embedded in a firm or its innovative culture as motivating factors for workers to adopt innovative behaviours. Innovativeness is much related to having appropriate potential in the form of highly-qualified human resources (Skibiński & Sipa, 2015).

Irrespective of the adopted view, innovativeness is fundamental and essential for the long-term performance, competitiveness, and survival of supply chain firms and SMEs in emerging markets (Adam & Alarifi, 2021; Du *et al.*, 2022; Kalyar *et al.*, 2020). A couple of studies suggested that innovativeness strengthens supply chain management and is thus significant for firms' performances (Kalyar *et al.*, 2020), while a high level of innovativeness positively impacts Supply Chain Integration (SCI) (Seo *et al.*, 2014; Skippari *et al.*, 2017). However, innovation requires an effective mixture of resources and organisational characteristics at different levels (Halim *et al.*, 2021). A higher level of innovativeness is indicative of openness to change, tendency and willingness to introduce or execute new ideas, products, processes, and solutions as an entrepreneur's value-system and organisational culture (Adam & Alarifi, 2021; Halim *et al.*, 2021; Seo *et al.*, 2014; Walder *et al.*, 2019). Also, the resource capabilities of an enterprise impact its ability to identify external opportunities to increase its innovation and performance (Celtekligil & Adiguzel, 2019). Hanifah *et al.* (2017) note that studies have found that more innovative organisations are managed by richly educated, skilful or knowledgeable human capital, increasing the organisations' innovativeness. These all follow the resource-based view (RBV), which is one of the underpinning theories of this conceptual paper.

As critical contributors to Malaysia's economy (Yusoff *et al.*, 2018), halal SMEs must be able to make innovation, access and deploy resources required for their performances (Du *et al.*, 2022). World Bank Surveys showed that innovation and technology adoption were Malaysian SMEs' most important performance boosters, having the highest impact on productivity and employment growth (National SME Development Council, 2012). Over the years, the introduction of astounding innovations has significantly transformed supply chain business operations, while digital technology has completely changed the operational process for SMEs (Hussain *et al.*, 2022; Talib *et al.*, 2022). Some of these innovations in the supply chain include containerisation, Electronic Data Interchange (EDI), Radio Frequency Identification (RFID), big data, blockchain technology, and electric vehicles (Talib *et al.*, 2022). Taking advantage of revolutionary innovations like Artificial Intelligence (AI), robotic engineering, 3D printing, etc, would lower production costs, improve the quality of goods, and ultimately improve firm competitiveness (Hussain *et al.*, 2022).

2.3 Supply Chain Performance (SCP)

Due to the different performance metrics adopted by various writers, constructs of Supply Chain Performance (SCP) are diverse and vary (Kalyar *et al.*, 2020). Traditional SCP measures such as cost, activity time, customer responsiveness, and flexibility are incomplete based on inclusiveness, universality, measurability, and consistency criteria (Seo *et al.*, 2014). Hence, Gunasekaran *et al.* (2004) widely referenced study proposes a comprehensive SCP measurement framework categorised as strategic, financial, operational, and tactical performance (Kalyar *et al.*, 2020; Seo *et al.*, 2014). The framework is further divided into metrics for order planning, evaluation of supply link, measures and metrics at the production level, evaluation of delivery link; measuring customer service and satisfaction; and supply chain and logistics (Gunasekaran *et al.*, 2004; Seo *et al.*, 2014).

Kalyar *et al.* (2020) divide the Supply Chain (SC) operational metric into SC efficiency and SC effectiveness. According to Kalyar *et al.*, SC efficiency refers to evaluating the time needed to respond to unexpected supply requirements without additional cost and SC cycle time spent on value-adding activities. SC effectiveness refers to order fulfilment lead time - the average amount of time between order entry and order delivery- and perfect order fulfilment (Kalyar *et al.*, 2020). Perfect order fulfilment refers to orders delivered completely on the date requested by the customer, in perfect condition, with the correct documentation, all relative to the total number of orders (Tsanos *et al.*, 2014). Significant SCP metrics chiefly aided by Supply Chain Integration (SCI) are improved pipeline and demand visibility - the visibility of each partner's supply chain activities (Palomero & Chalmeta, 2014). Other key Supply chain performance (SCP) metrics classifications identified in the literature include service dimension - a measure of how well or not customers have been served; assets - monetary value and inventory turns; and speed dimensions - quoted customer response time, supply chain cycle time and cash conversion cycle time (Hausman, 2005).

Generally, effective and efficient SCP are indicated by improvement of business operations, achievement of value added to the customer, efficiency when inbound and outbound supply are integrated, and achievement of firm best performance (Hakim, 2020). Other indicators, as articulated by Palomero & Chalmeta (2014), include cost reduction; increased revenue; improved quality, customer satisfaction,

and on-time delivery; reduced operational and process time; standardised product, automated processes, and production; improved distribution and payment process; and improved global competitiveness.

To conclude this section, the researchers have so far demonstrated how Supply Chain Integration (SCI) and innovativeness positively impact the supply chain performance of SMEs. The reviewed literature and studies' outcomes show that SCI and innovativeness are essential to modern-day business entities' survival, competitiveness, and supply chain performance. Likewise, they establish that the SCI and supply chain performance exhibit positive relationships, especially when mediated by innovativeness. Hence, the researchers have incorporated innovativeness into the model as a mediating variable, as shown in Figure 1 below, to ascertain whether it mediates the impacts of SCI on the supply chain performance of halal SMEs. Also, innovativeness was incorporated into the model to reveal whether the impacts of SCI on supply chain performance will be different for a more innovative halal SME.

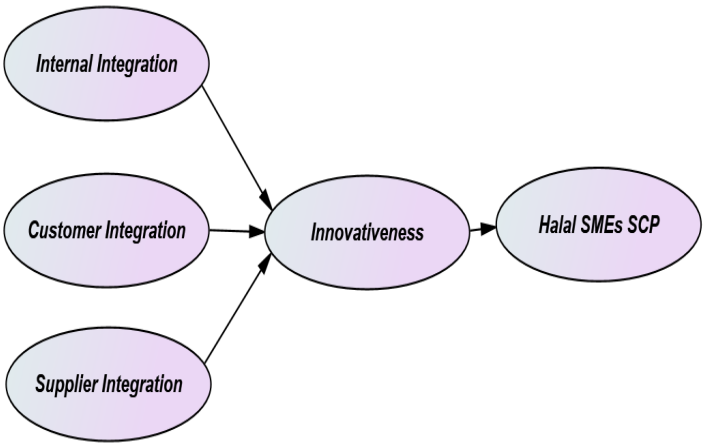

Figure 1: Conceptual Framework.

3. Context of the study - Malaysian halal industry

Malaysia, which is ranked the world's top halal industry country (Dinar Standard, 2021) with over 40 years of experience in the halal industry, has realised the huge economic potentials that still exist in the halal industry. By 2030, the global Halal market is expected to grow to USD 5.0 trillion, while domestic growth is estimated to reach USD 113.2 billion. However, according to the report by Halal Development Corporation (2020), there is an estimated 80% gap between the demand for and production of global halal products. With a comprehensive Halal ecosystem, Malaysia has a competitive advantage to fully capitalise on this timely opportunity (Halal Development Corporation, 2020). Significantly, SMEs have always been identified to be central to the country's national development, while the government has given significant concerns to halal SMEs in particular (Tahir *et al.*, 2016). SMEs account for 97.4% of the country's overall establishments, contributing to 47.8% of total employment and 37.4% of GDP (DOSM, 2022). Also, the Malaysian Twelfth National Development Plan has been designed to boost the halal industry. According to the government, the industry's development will be accelerated through the Halal Industry Master Plan (HIMP) 2030). This plan outlines seven strategic thrusts focusing on producing high-quality products and services along the halal supply chain (Marketing-Interactive.com, 2021). These undoubtedly show the strategic, social, and economic importance of halal SMEs that operate in the Malaysian MSME sector.

However, despite the strategic importance of SMEs to Malaysian development plans, the sector is still vulnerable to economic constraints, uncertainty, and supply chain shocks and is threatened by the volatile competitive business environment experienced during the COVID-19 pandemic. Meanwhile, studies have identified SCI and innovativeness as crucial to halal SMEs' survival, competitiveness, and supply chain performance. Therefore, the researchers have proposed a model through this study to effectively understand the impacts of SCI on halal SMEs supply chain performance. It also includes the mediating role of innovativeness in the relationship.

4. Research design for future research

In alignment with the proposed model, it is suggested that future investigations be conducted using a positivist approach or research paradigm. This approach is recommended to enable future research to objectively test causal relationships among the variables, as it is widely accepted in quantitative research (Khaldi, 2017). Positivism research paradigm is based on the ontological assumption of a reality that is independent of the observer (Dahler-Larsen, 2015): realities of the world are objective and knowable in their entirety; a researcher can be separated from the research's object; hence his/her task is to describe and analyse this reality neutrally (Khaldi, 2017). Also, the ethical procedural implication of the positivism paradigm, such as confidentiality, informed consent, and avoidance of coercion, should be followed by future research (Dahler-Larsen, 2015).

In addition, future research is expected to develop a questionnaire based on the existing literature that would consider all variables in the model. Such a questionnaire would be employed to collect data from employees in halal SMEs businesses to investigate these variables. The procedure for data collection could be a probability or non-probability sampling approach using a valid instrument (Likert scale) that measures the impacts of SCI on the Supply Chain Performance (SCP) of halal SMEs. The sample population to be studied by future research would be adults with at least three years of experience and currently working in the halal SME sector. A sample size between 100 and 500 participants is recommended for structural equation modelling, which is appropriate for the proposed model. Based on responses from the research participants, conclusions would be made on the impacts of SCI on SCP, the relationship between them, and the mediating and possible moderating variables. In addition, various recommendations would be sought to enrich the study.

5. Conclusion and research outcome

The researchers have proposed a model and conceptual framework where the assumption is that the SCI of halal SMEs positively impacts their SCP while innovativeness mediates the relationship. While there are limited empirical studies that investigate these relationships, we have built on the existing literature to show that, amongst other proofs, SCI impacts positively on SMEs' SCP. Furthermore, innovativeness plays a mediating role between SCI and SMEs' SCP. Based on this model proposed by the researcher and various empirical findings, we assume Supply Chain Integration (SCI) will positively impact halal SMEs' Supply Chain Performance (SCP). In addition, it is also assumed that these relationships would be mediated by innovativeness– SCI might have a more significant positive impact on SCP if innovativeness is

introduced as a strategic element of SMEs operation. Hence, the impacts of SCI on SCP may vary according to the quantity and quality of innovativeness introduced.

6. Acknowledgement
The research was supported by the Ministry of Higher Education (MOE) through Fundamental Research Grant Scheme FRGS/1/2021/SS01/UIAM/02/4.

References

Adam, N. A., & Alarifi, G. (2021). Innovation practices for survival of small and medium enterprises (SMEs) in the COVID-19 times: the role of external support. Journal of Innovation and Entrepreneurship, 10(1). https://doi.org/10.1186/s13731-021-00156-6

Al-Habahbeh, S. J. (2022). The Effect of Supply Chain Integration on Supply Chain Capabilities. https://doi.org/10.2139/ssrn.3468798

Alraja, M. N., Imran, R., Khashab, B. M., & Shah, M. (2022). Technological Innovation, Sustainable Green Practices and SMEs Sustainable Performance in Times of Crisis (COVID-19 pandemic). Information Systems Frontiers, 1081–1105. https://doi.org/10.1007/s10796-022-10250-z

Birhanu, Y., Gizaw, T., Teshome, D., Boche, B., & Gudeta, T. (2022). The Mediating Effect of İnformation Sharing on Pharmaceutical Supply Chain İntegration and Operational Performance in Ethiopia: an Analytical Cross-Sectional Study. Journal of Pharmaceutical Policy and Practice, 15(1), 1–11. https://doi.org/10.1186/s40545-022-00440-0

Cao, Z., Huo, B., Li, Y., & Zhao, X. (2015). The İmpact of Organisational Culture on Supply Chain İntegration: A Contingency and Configuration Approach. Supply Chain Management, 20(1), 24–41. https://doi.org/10.1108/SCM-11-2013-0426

Celtekligil, K., & Adiguzel, Z. (2019). Analysis of the Effect of Innovation Strategy and Technological Turbulence on Competitive Capabilities and Organisational Innovativeness in Technology Firms. Procedia Computer Science, 158, 772–780. https://doi.org/10.1016/j.procs.2019.09.114

Chin, T. A., Hamid, A. B. A., Rasli, A., & Baharun, R. (2012). Adoption of Supply Chain Management in SMEs. Procedia - Social and Behavioral Sciences, 65(December), 614–619. https://doi.org/10.1016/j.sbspro.2012.11.173

Claudino, T. B., Santos, S. M. dos, Cabral, A. C. de A., & Pessoa, M. N. M. (2017). Fostering and Limiting Factors of İnnovation in Micro and Small Enterprises. RAI Revista de Administração e Inovação, 14(2), 130–139. https://doi.org/10.1016/j.rai.2017.03.007

Corporation, H. D. (2020). Halal Industry Master Plan 2030 : Executive Summary. In Ministry of Economic Affairs.

Dahler-Larsen, P. (2015). The Evaluation Society Dahler Larsen.

Dinar Standard. (2021). State of the Global Islamic Economy Report 2020/2021. State of the Global Islamic Economy Report 2020/21, 4–202. https://haladinar.io/hdn/doc/report2018.pdf

DOSM. (2022). Interactive Malaysia Statistical Business Register. Department of Statistics Malaysia, June. https://www.dosm.gov.my/v1/index.php?r=column/cthree&menu_id=WXVrV3RYTmE3RmtwQ2RicVZTbVkvZz09

Du, L., Razzaq, A., & Waqas, M. (2022). The Impact of COVID-19 on Small and Medium Sized Enterprises (SMEs): Empirical Evidence for Green Economic İmplications. Environmental Science and Pollution Research, 1540–1561. https://doi.org/10.1007/s11356-022-22221-7

Espino-rodríguez, F., & Taha, M. G. (2022). Management Supplier innovativeness in Supply Chain Integration and Sustainable pPrformance in the Hotel Industry. International Journal of Hospitality. 100. https://doi.org/10.1016/j.ijhm.2021.103103

Flynn, B. B., Huo, B., & Zhao, X. (2010). The İmpact of Supply Chain İntegration on Performance: a Contingency and Configuration Approach. Journal of Operations Management, 28(1), 58–71. https://doi.org/10.1016/j.jom.2009.06.001

Gonen, S. O. (2022). A Bibliometric Analysis on Halal Logistics and Halal Supply Chain. 6th INTERNATIONAL CAUCASUS-CENTRAL ASIA FOREIGN TRADE AND LOGISTICS CONGRESS, October.

Gunasekaran, A., Patel, C., & McGaughey, R. E. (2004). A Framework for Supply Chain Performance Measurement. International Journal of Production Economics, 87(3), 333–347. https://doi.org/10.1016/j.ijpe.2003.08.003

Hakim, M. A. (2020). Supply Chain Integration in Fashion Industry, Bandung City. Advances in Social Sciences Research Journal, 7(7), 619–629. https://doi.org/10.14738/assrj.77.8710

Hakim, R. M. A., Maulina, E., & Purnomo, M. (2018). Supply Chain Integration in Small Medium Enterprises: a Systematic Literature Review. Russian Journal of Agricultural and Socio-Economic Sciences, 73(1), 131–140. https://doi.org/10.18551/rjoas.2018-01.17

Halim, H. A., Hanifah, H. M., Thurasamy, R., & Ahmad, N. H. (2021). Reinforcing the İnnovation Performance of Smes Through İnnovation Culture and Government Support. Estudios de Economia Aplicada, 39(10), 1–12. https://doi.org/10.25115/eea.v39i10.5648

Hamdana, Murwani, F. D., Sudarmiatin, & Hermawan, A. (2022). The Effects of Financial and Technology Literacy on the Sustainability of Indonesian SME: Mediating Role of Supply Chain Practice. Uncertain Supply Chain Management, 10(4), 1449–1456. https://doi.org/10.5267/j.uscm.2022.6.011

Hanifah, H., Halim, H. A., Ahmad, N. H., & Vafaei-Zadeh, A. (2017). Understanding the İnnovation Culture Towards İnnovation Performance among Bumiputera SMEs. International Journal of Economic Research, 14(16), 279–293.

Hausman, W. H. (2005). Supply Chain Performance Metrics. The Practice of Supply Chain Management: Where Theory and Application Converge, 61–73. https://doi.org/10.1007/0-387-27275-5_4

Hendijani, R., & Saeidi Saei, R. (2020). Supply Chain İntegration and Firm Performance: The Moderating Role of Demand Uncertainty. Cogent Business and Management, 7(1).

https://doi.org/10.1080/23311975.2020.1760477

Hussain, A., Hussain, R., Akbar, M., Shahzad, A., Poulova, P., & Akbar, A. (2022). E-Commerce and SME Performance: The Moderating Influence of Entrepreneurial Competencies. Administrative Sciences, 12(13). https://doi.org/10.3390/admsci1201001

Jagan Mohan Reddy, K., Neelakanteswara Rao, A., & Krishnanand, L. (2019). A Review on Supply Chain Performance Measurement Systems. Procedia Manufacturing, 30, 40–47. https://doi.org/10.1016/j.promfg.2019.02.007

Kalyar, M. N., Shafique, I., & Ahmad, B. (2020). Effect of İnnovativeness on Supply Chain İntegration and Performance: Investigating the Moderating Role of Environmental Uncertainty. International Journal of Emerging Markets, 15(2), 362–386. https://doi.org/10.1108/IJOEM-09-2018-0486

Kamaruddeen, A. M., Yusof, N. A., & Said, I. (2010). Innovation and İnnovativeness: Difference and Antecedent Relationship. the Icfai University Journal of Architecture, 2(1), 66–78. http://www.academia.edu/download/40246896/Innovation_and_Innovativeness_Difference20151121-9711-176thus.pdf

Khaldi, K. (2017). Quantitative, Qualitative or Mixed Research: Which Research Paradigm to Use? Journal of Educational and Social Research, 7(2), 15–24. https://doi.org/10.5901/jesr.2017.v7n2p15

Kim, M., & Chai, S. (2017). The İmpact of Supplier İnnovativeness, İnformation Sharing and Strategic Sourcing on İmproving Supply Chain Agility: Global Supply Chain Perspective. International Journal of Production Economics, 187, 42–52. https://doi.org/10.1016/j.ijpe.2017.02.007

Latifi, M. A., Nikou, S., & Bouwman, H. (2021). Business Model İnnovation and Firm Performance: Exploring Causal Mechanisms in SMEs. Technovation, 107(April), 102274. https://doi.org/10.1016/j.technovation.2021.102274

Manzaneque-Lizano, M., Alfaro-Cortés, E., & de la Cruz, A. M. P. (2019). Stakeholders and Long-Term Sustainability of SMEs. Who Really Matters in Crisis Contexts, and When. Sustainability (Switzerland), 11(23), 1–27. https://doi.org/10.3390/su11236551

Marketing-Interactive.com. (2021). Malaysia to İnvest RM12.63m to Grow Halal İndustry Next Year. Marketing Interactive.Com. https://www.marketing-interactive.com/malaysia-to-invest-rm12-63m-to-grow-halal-industry-next-year

McKone-Sweet, K., & Lee, Y. T. (2009). Development and Analysis of a Supply Chain Strategy Taxonomy. Journal of Supply Chain Management, 45(3), 3–24. https://doi.org/10.1111/j.1745-493X.2009.03167.x

Msimangira, K. A. B., & Venkatraman, S. (2014). Supply Chain Management Integration: Critical Problems and Solutions. Operations and Supply Chain Management: An International Journal, 7(1), 23–31. https://doi.org/10.31387/oscm0160101

National SME Development Council. (2012). Malaysia SME Masterplan 2012-2020.

Palomero, S., & Chalmeta, R. (2014). A Guide for Supply Chain İntegration in SMEs. Production Planning and Control, 25(5), 372–400. https://doi.org/10.1080/09537287.2012.698422

Piprani, A. Z., Mohezar, S., & Jaafar, N. I. (2020). Supply Chain Integration and Supply Chain Performance: The Mediating Role of Supply Chain Resilience. International Journal of Supply Chain Management.

Qurtubi, & Kusrini, E. (2018). Research in Halal Logistics and Halal Supply Chain: Issue and Area Development. MATEC Web of Conferences, 154, 2–5. https://doi.org/10.1051/matecconf/201815401096

Rampersad, G. C., Hordacre, A. L., & Spoehr, J. (2020). Driving İnnovation in Supply Chains: an Examination of Advanced Manufacturing and Food İndustries. Journal of Business and Industrial Marketing, 35(5), 835–847. https://doi.org/10.1108/JBIM-03-2019-0101

Rozhkov, M., Ivanov, D., Blackhurst, J., & Anand Nair. (2020). Adapting Supply Chain Operations in Anticipation of and during the COVID-19 Pandemic. January.

Seo, Y. J., Dinwoodie, J., & Kwak, D. W. (2014). The İmpact of İnnovativeness on Supply Chain Performance: is Supply Chain İntegration a Missing Link? Supply Chain Management, 19, 733–746. https://doi.org/10.1108/SCM-02-2014-0058

Sha, M., Liu, J., & Ren, W. (2020). Impact of COVID-19 Pandemic on Micro, Small and Medium-Sized Enterprises Operating in Pakistan. Elsevier Ltd., January.

Skibiński, A., & Sipa, M. (2015). Sources of Innovation of Small Businesses: Polish Perspective. Procedia Economics and Finance, 27(15), 429–437. https://doi.org/10.1016/s2212-5671(15)01017-5

Skippari, M., Laukkanen, M., & Salo, J. (2017). Cognitive Barriers to Collaborative İnnovation Generation in Supply Chain Relationships. Industrial Marketing Management, 62, 108–117. https://doi.org/10.1016/j.indmarman.2016.08.002

Sonobe, T., Takeda, A., Yoshida, S., & Truong, H. T. (2021). The Impacts of the COVID-19 Pandemic on Micro, Small, and Medium Enterprises in Asia and Their Digitalization Responses. In ADBI Working Paper (Issue 1241). https://doi.org/10.2139/ssrn.3912355

Tahir, P. R., Hanaysha, J., & Sultana, M. (2016). Level of Success of Halal Small and Medium Entrepreneurs in Malaysia. Asian Journal of Scientific Research, 9(4), 214–218. https://doi.org/10.3923/ajsr.2016.214.218

Talib, M. S. A., Ngah, A. H., & Kurniawati, D. A. (2022). Theories in Halal Logistics and Supply Chain Management Research. Halal Logistics and Supply Chain Management, February, 32–44. https://doi.org/10.4324/9781003223719-5

Tsanos, C. S., Zografos, K. G., & Harrison, A. (2014). Developing a Conceptual Model for Examining the Supply Chain Relationships between Behavioural Antecedents of Collaboration, İntegration and Performance. In International Journal of Logistics Management (Vol. 25, Issue 3). https://doi.org/10.1108/IJLM-02-2012-0005

UNCTAD. (2022). The COVID-19 Pandemic Impact on Micro, Small and Medium Sized Enterprises Policy. In The COVID-19 Pandemic Impact on Micro, Small and Medium Sized Enterprises Policy. https://doi.org/10.18356/9789210013116

Walder, P., Sinabell, F., Unterlass, F., Niedermayr, A., Fulgeanu, D., Kapfer, M., Melcher, M., & Kantelhardt, J. (2019). Exploring the Relationship between Farmers' İnnovativeness and their Values and Aims. Sustainability (Switzerland), 11(20), 1–15. https://doi.org/10.3390/su11205571

Wong, C. Y., Wong, C. W. Y., & Boon-itt, S. (2020). Effects of Green Supply Chain İntegration and Green İnnovation on Environmental and Cost Performance. International Journal of Production Research, 58(15), 4589–4609. https://doi.org/10.1080/00207543.2020.1756510

Yusoff, T., Wahab, S. A., Latiff, A. S. A., Osman, S. I. W., Zawawi, N. F. M., & Fazal, S. A. (2018). Sustainable Growth in SMEs: A Review from the Malaysian Perspective. Journal of Management and Sustainability, 8(3), 43. https://doi.org/10.5539/jms.v8n3p43