

# Enhancing Sustainable Hospital Supply Chain Management through Collaboration and Information Flow in the Post-Pandemic Era

Shaiful Islam<sup>1</sup>, Md. Mamun Habib<sup>2</sup>

<sup>1,2</sup>Graduate School of Business, Universiti Tun Abdul Razak (UNIRAZAK), Malaysia

<sup>1</sup>i.shaiful203@ur.unirazak.edu.my, <sup>2</sup>mamunhabib@unirazak.edu.my

**Received** May 02, 2023, **Accepted:** May 13, 2023, **Published Online:** May 15, 2023

**Reviewers:** Anonymous Peer Review

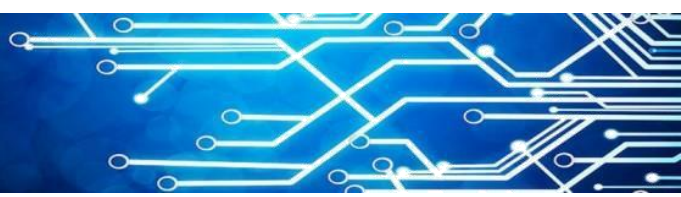
**Citation:** Islam, S, and Mamun Habib. "Enhancing Hospital Supply Chain Management Sustainability through Collaboration and Information Flow in the Post-Pandemic Era" *International Supply Chain Technology Journal*, vol. 9, no. 6, 2023, <https://doi.org/10.20545/isctj.v09.i06.02>

The importance of sustainability in Hospital Supply Chain Management (HSCM) has been increasingly recognized, particularly in the post-pandemic era. With growing demands for healthcare services, environmental concerns, and the pressing need for cost-effective solutions, hospitals must reconsider their supply chain strategies to ensure sustainability [1]. One critical aspect of achieving sustainable HSCM is fostering collaboration and information flow among stakeholders. Previously the author discussed about the Hospital Infrastructure Development (HID) which is one of the key elements that can contribute to sustainable HSCM [9]. This article will discuss another key element, the significance of "Collaboration & Information Flow" in ensuring Hospital Supply Chain Management Sustainability.

## *Collaboration in Hospital Supply Chain Management*

In the increasingly complex healthcare environment, collaboration among stakeholders, including suppliers, distributors, hospitals, and patients, is vital to achieving sustainable supply chain management. Establishing strong relationships and fostering communication between these stakeholders can reduce inefficiencies, minimize waste, and optimize resource allocation. Furthermore, collaboration enables the sharing of best practices and innovative solutions for sustainable operations.

For instance, supplier engagement is essential in driving sustainability initiatives, such as adopting environmentally friendly practices and ensuring the ethical sourcing of materials [2]. By collaborating with suppliers, hospitals can identify areas of improvement and implement changes that contribute to the overall sustainability of the supply chain.



Collaboration with distributors and logistics providers is equally important. They play a critical role in minimizing the environmental impact of transportation and ensuring that products reach hospitals in a timely manner [3]. By working closely with these partners, hospitals can streamline their logistics processes, reduce carbon emissions, and cut costs.

### ***Information Flow in Hospital Supply Chain Management***

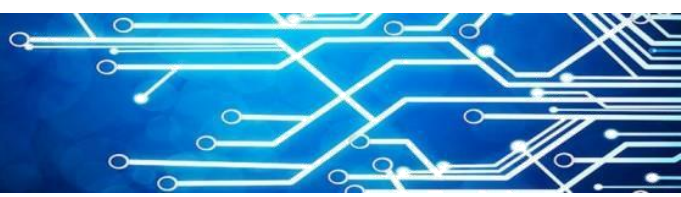
Efficient information flow is crucial for effective collaboration in HSCM. It involves the timely and accurate exchange of data and knowledge among stakeholders, enabling them to make informed decisions and respond to changes in demand or supply quickly [4]. With the rapid advancements in technology, digital solutions have become instrumental in facilitating seamless information flow in supply chains [5].

For example, Electronic Data Interchange (EDI) and Electronic Health Records (EHR) systems can automate and standardize the exchange of information between suppliers, distributors, and hospitals, reducing errors and increasing efficiency [6]. Moreover, real-time data sharing through cloud-based platforms can help stakeholders monitor inventory levels, track shipments, and forecast demand more accurately, contributing to the overall sustainability of the supply chain [7].

In addition, the use of advanced analytics and machine learning algorithms can transform the vast amount of data generated by hospitals into actionable insights. This can help identify patterns and trends that can be leveraged to optimize resource allocation, reduce waste, and enhance patient outcomes, ultimately contributing to a more sustainable healthcare system.



In conclusion, collaboration and information flow are crucial components of sustainable Hospital Supply Chain Management in the post-pandemic era. By fostering strong relationships among stakeholders and leveraging digital solutions to facilitate seamless information exchange, hospitals can optimize their supply chain operations, reduce their environmental footprint, and improve



patient care. The integration of advanced analytics and machine learning can further enhance decision-making and drive sustainability initiatives in the healthcare sector.

## References

- [1] Kumar, S., & Chandra, C. (2017). Healthcare supply chain management: a literature review. *Operations and Supply Chain Management*, 10(2), 100-121.
- [2] Rajan, A., & Chong, A. Y. L. (2016). Sustainable supply chain management: Review and research opportunities. *Industrial Management & Data Systems*, 116(2), 151-172.
- [3] Bai, C., & Sarkis, J. (2010). Integrating sustainability into supplier selection with grey system and rough set methodologies. *International Journal of Production Economics*, 124(1), 252-264.
- [4] Ageron, B., Gunasekaran, A., & Spalanzani, A. (2012). Sustainable supply management: An empirical study. *International Journal of Production Economics*, 140(1), 168-182.
- [5] Kelle, P., & Silver, E. A. (2016). The bullwhip effect: Progress, trends, and directions. *European Journal of Operational Research*, 241(2), 505-516.
- [6] Li, X., Chung, C. M., Goldsby, T. J., & Holsapple, C. W. (2008). A unified model of supply chain agility: The work-design perspective. *International Journal of Logistics Management*, 19(3), 408-435.
- [7] Sari, K. (2008). On the benefits of CPFR and VMI: A comparative simulation study. *International Journal of Production Economics*, 113(2), 575-586.
- [8] Raghavan, V., Baruah, P., & Kannan, G. (2019). Big data analytics in sustainable supply chain management. *Resources, Conservation and Recycling*, 141, 332-346
- [9] Islam, S., & Habib, M. M. (2023). Sustainable Hospital Supply Chain Management Through Hospital Infrastructure Development. *International Supply Chain Technology Journal*, 9(5). <https://doi.org/10.20545/isctj.v09.i05.02>