ACHIEVING SUSTAINABLE DEVELOPMENT GOALS (SDGs) IN HEALTHCARE SUPPLY CHAINS: A RESILIENCE-BASED APPROACH

Natália Maciel Tocchetto, Joabe Mikael Rocha e Silva Nascimento, Patrick Ferreira da Silva, Bruna Borin
Federal University of Rio Grande do Sul
Email: nataliamtoc@gmail.com; joabekavaci@gmail.com; patrickfs@id.uff.br; borin.bru@gmail.com

Purpose: The United Nations' Sustainable Development Goals (SDGs) discussion has been a constant topic in organizations' strategies. Due to its complexity, establishing a sustainable system becomes more challenging in healthcare environments like hospitals. Few studies address the development of resilient sustainable chains capable of overcoming disruptions in their regular flow after adverse events. This article aims to deepen the discussions on the role of resilience in sustainable supply chains within the healthcare sector. Accordingly, the following research question arises: "How can the Design for Resilient Performance (DfRP) principles contribute to sustainable supply chains in healthcare settings?" To address this, we will apply the principles of resilient systems design suggested by Disconzi and Saurin (2022) in hospital settings that seek to implement the SDGs assumptions in their supply chains. From this, resilient guidelines for sustainable supply chains will be established, in line with the sustainable objectives set by the United Nations.

Research Approach: In-depth interviews were conducted using a semi-structured questionnaire, addressing issues related to supply chain challenges in healthcare, resilience, and sustainability. The first phase involved professionals responsible for the supply chain in three Brazilian hospitals (public and private ones). In the second phase, sustainability experts were interviewed under the same conditions to triangulate the data. Finally, the inductive method was used to relate the principles of resilient systems design to sustainability in the healthcare supply chain.

Findings and Originality: This article deepens the understanding of the role of resilience in sustainable supply chains within the healthcare sector, identifying strategies to prepare systems to handle disruptive events and providing practical resilience guidelines. Although there are studies on sustainable supply chains in healthcare, the approach of Resilience Engineering aligned with SDGs remains relatively unexplored. The connection of these themes highlights the relevance of this research, given the crucial role that hospitals and the healthcare sector play in pursuing more sustainable development.

Research Impact: This study contributes to the theoretical advancement of knowledge regarding resilience in sustainable logistics within healthcare environments, specifically in hospitals in a developing country. Furthermore, the integration with the resilient principles established by Disconzi and Saurin (2022) opens the way for discussions on the impact of Resilience Engineering on supply chain sustainability, offering new perspectives on overcoming complex challenges related to sustainability and facing adverse events.
**Practical Impact:** By establishing guidelines, this article supports the efforts of conscious managers and professionals in hospitals to enhance operational efficiency, reduce waste, minimize environmental impact, and improve overall supply chain sustainability in the healthcare sector. Additionally, integrating resilience principles aids hospitals in better planning actions to address adverse events such as natural disasters or public health crises within the supply chain.

**Keywords:** healthcare supply chain, resilience, sustainable development goals, design for resilient performance
ACHIEVING SUSTAINABLE DEVELOPMENT GOALS (SDGs) IN HEALTHCARE SUPPLY CHAINS: A RESILIENCE-BASED APPROACH

Natália Maciel Tocchetto, Joabe Mikael Rocha e Silva Nascimento, Patrick Ferreira da Silva, Bruna Borin
Federal University of Rio Grande do Sul
Email: nataliamtoc@gmail.com; joabekavaci@gmail.com; patrickfs@id.uff.br; borin.bru@gmail.com

Purpose: The United Nations' Sustainable Development Goals (SDGs) discussion has been a constant topic in organizations' strategies. Due to its complexity, establishing a sustainable system becomes more challenging in healthcare environments like hospitals. Few studies address the development of resilient sustainable chains capable of overcoming disruptions in their regular flow after adverse events. This article aims to deepen the discussions on the role of resilience in sustainable supply chains within the healthcare sector. Accordingly, the following research question arises: "How can the Design for Resilient Performance (DfRP) principles contribute to sustainable supply chains in healthcare settings?" To address this, we will apply the principles of resilient systems design suggested by Disconzi and Saurin (2022) in hospital settings that seek to implement the SDGs assumptions in their supply chains. From this, resilient guidelines for sustainable supply chains will be established, in line with the sustainable objectives set by the United Nations.

Research Approach: In-depth interviews were conducted using a semi-structured questionnaire, addressing issues related to supply chain challenges in healthcare, resilience, and sustainability. The first phase involved professionals responsible for the supply chain in three Brazilian hospitals (public and private ones). In the second phase, sustainability experts were interviewed under the same conditions to triangulate the data. Finally, the inductive method was used to relate the principles of resilient systems design to sustainability in the healthcare supply chain.

Findings and Originality: This article deepens the understanding of the role of resilience in sustainable supply chains within the healthcare sector, identifying strategies to prepare systems to handle disruptive events and providing practical resilience guidelines. Although there are studies on sustainable supply chains in healthcare, the approach of Resilience Engineering aligned with SDGs remains relatively unexplored. The connection of these themes highlights the relevance of this research, given the crucial role that hospitals and the healthcare sector play in pursuing more sustainable development.

Research Impact: This study contributes to the theoretical advancement of knowledge regarding resilience in sustainable logistics within healthcare environments, specifically in hospitals in a developing country. Furthermore, the integration with the resilient principles established by Disconzi and Saurin (2022) opens the way for discussions on the impact of Resilience Engineering on supply chain sustainability, offering new perspectives on overcoming complex challenges related to sustainability and facing adverse events.
**Practical Impact:** By establishing guidelines, this article supports the efforts of conscious managers and professionals in hospitals to enhance operational efficiency, reduce waste, minimize environmental impact, and improve overall supply chain sustainability in the healthcare sector. Additionally, integrating resilience principles aids hospitals in better planning actions to address adverse events such as natural disasters or public health crises within the supply chain.

**Keywords:** healthcare supply chain, resilience, sustainable development goals, design for resilient performance