

**MITIGATING THE IMPACT OF GLOBAL SUPPLY CHAINS ON OCEAN HEALTH: A
COMPREHENSIVE REVIEW OF SUSTAINABLE PRACTICES**

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Introdução

The ocean is key to economic growth, as well as for international trade and the global economy (Ferrari, Christidis and Bolsi, 2023). The shipping industry accounts for over 80 percent of the world's trade volume (UNCTAD, 2023). Economic activities such as extraction, transportation, manufacture, procurement, warehouse, packaging, distribution, sales, and consumption constantly merge in global supply chain structures, which have progressively evolved and included processes, participants, and stakeholders in different countries (Southern, 2011).

Problema de Pesquisa e Objetivo

The main goal of our paper was to identify the most important sustainability risks the ocean is facing due to the economic activities of global supply chains. In addition, our study delves into the current scientific business-oriented literature to explore how these risks have been developed and how researchers have been considering them while they move forward in the SCM field. Thus, our research questions fold in two: (i) How do supply chain activities impact ocean health? and (ii) What SCM practices can mitigate negative impacts on marine ecosystems?

Fundamentação Teórica

Based on international bodies and NGOs (such as SeaBOS (2023a, 2023b) and United Nations (2022)), we have identified, and built the paper upon five risks for the ocean derived from global supply chain activities: (i) Chemical spills and plastic pollution, (ii) Improper waste disposal by ships, (iii) Unsustainable fishing and overexploitation of marine resources, (iv) Industrial effluents and agriculture, and (v) Resource extraction. These cases are explored through a theoretical and practical approach, integrating supply chain management theories, environmental studies and SDG 14 framework.

Discussão

The environmental degradation, including the deterioration of marine and coastal ecosystems is exacerbated by the escalating risk of coastal disasters, increasing uncertainty from rising sea levels, and the pronounced complexity brought about by climate change. Supply chain activities significantly impact ocean health through various mechanisms, including chemical spills, plastic pollution, unsustainable fishing practices, industrial effluents, agricultural runoff, and resource extraction activities like seabed mining and oil drilling.

Conclusão

Our key findings reveal that chemical spills, marine plastic debris, industrial and agricultural effluents, unsustainable fishing practices, and resource extraction activities significantly harm marine ecosystems. To mitigate these impacts, essential practices include improving waste management protocols, promoting sustainable fishing, reducing industrial and agricultural effluents, and enhancing response mechanisms for resource extraction. These findings underscore the need for comprehensive regulations, international cooperation, and sustainable business practices.

Referências Bibliográficas

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