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International Trade and Business Intelligence: A Systematic Literature Review and Research Agenda

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Introduction

In an era of increasing interconnectedness within the global economy, international trade has emerged as a pivotal element fueling economic growth, development, and innovation (Abendin and Duan, 2021; Vijayasri, 2013; Singh, 2010). The rapid rise of globalization, in conjunction with advancements in Information and Communication Technologies (ICT), has fundamentally reshaped the manner in which businesses operate, compete, and collaborate across borders (Hanna, 2010). The integration of global supply chains has increased, and the digital transformation has introduced new avenues for market access and operational efficiencies. Concurrently, the intricacies of contemporary international trade have escalated, giving rise to challenges such as supply chain disruptions, market volatility, regulatory challenges, and fraud risks. To maintain competitiveness in this ever-evolving landscape, businesses must adopt sophisticated tools and strategies that enable effective navigation of these complexities (Jaloliddin, 2023; Stefanovic & Stefanovic, 2009).

In this context, Business Intelligence (BI) has emerged as a critical enabler of data-driven decision-making. BI provides companies with the tools necessary to analyze vast amounts of data, identify emerging trends, optimize operations in real time, and gain a competitive edge (Chen & Wang, 2010). In the context of international trade, BI plays a pivotal role in enhancing supply chain visibility, improving export competitiveness, and mitigating risks associated with fraud, market uncertainty, and compliance challenges (Li & Lakzi, 2022). The integration of advanced technologies, such as big data analytics and machine learning, has enabled businesses to forecast demand, identify new market opportunities, and optimize logistics with remarkable precision (Tsilingeridis et al., 2023). Innovations such as blockchain technology are transforming supply chain management by ensuring transparency, traceability, and security in global trade networks, thus building trust among stakeholders and improving operational integrity (Abd et al., 2024).

Despite the growing importance of BI in international trade, there remains a gap in the literature regarding the comprehensive examination of how BI tools and technologies are specifically applied to the various facets of global trade. While there have been studies that have explored individual technologies, such as blockchain or big data analytics, there is a paucity of research that systematically investigates the broader scope of BI applications across different trade sectors. Moreover, extant research frequently exhibits an absence of an integrated approach, failing to consider the interactions between BI, supply chain management, risk mitigation, and regulatory compliance. Consequently, a systematic literature review is imperative to synthesize current findings, identify emerging trends, and provide a more nuanced understanding of how BI can enhance international trade.

The primary objective of this chapter is to explore the intersection of international trade and Business Intelligence. The chapter will focus on the technologies, trends, and applications that are reshaping the future of global trade. Specifically, the chapter aims to examine the role of BI in international trade.