

Transparent Supply Chain Management for Viksit Bharat 2047: A Hybrid Framework Integrating Ancient Indian Trade Principles with Blockchain, AI and IoT

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Abstract: Ancient India trade practices had robust yet simple mechanism for fair trade principles. These facilitated trust-oriented supply chain and are time tested. Recent supply chain model in India has made the entire process quick as comparison to the ancient days, but lacks the trust factor. This is primarily due to the absence of centralized governance and less adoption ratio for existing supply chain transparent mechanisms. In recent times although business houses are bearing massive loss due to absence of such trusted based network, they are still struggling to find an easy, affordable and robust solution in the Indian supply chain scenario, their key areas of struggle being data ownership, information sharing, system integration and implementation costs. In recent years India is considered as a leader in digital transformation and has potential to reshape India's supply chain management system with new age technologies. Opportunities exist to envision a transparent supply chain with fair-trade practices at par with the trusted ancient trade practices, leveraging Blockchain technology, Artificial Intelligence (AI), and IoT systems. The study addresses critical gaps in understanding how these integrated technological ecosystems could reshape stakeholder relationships, ethical sourcing methodologies, and end-to-end supply chain visibility across Indian supply chain operations. The study advocates and proposes a new age hybrid transparent supply chain management system backed by emerging and new age technologies along with the traditional Indian trade practices. This could align with the government of India's transformative vision of Viksit Bharat 2047, with \$30-35 trillion economy.

Keywords: Transparent Supply Chain, Blockchain, Artificial Intelligence (AI), IoT, Supply Chain Visibility, Viksit Bharat 2047

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