Real-time Tracking and Tracing System: Potentials for the Logistics Network

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Real-time Tracking and Tracing System: Potentials for the Logistics Network explores the importance and potential of real-time tracking and tracing technologies in enhancing logistics networks. The study is based on challenges faced by global industries in managing logistics efficiently, especially in dispersed manufacturing environments.

**Key Findings:**

1. **Tracking and Tracing Issues**: The paper highlights the need for improved tracking systems to resolve logistical inefficiencies, such as lost or stolen goods, which result in customer dissatisfaction and financial losses.
2. **Existing Technologies**: While technologies like GPS, RFID, and barcodes are available, they are often insufficient for complex, multi-company logistics networks. Current systems are proprietary, fragmented, and lack the ability to track item-level details like whether packages have been tampered with.
3. **Technological Gaps**: Most existing systems are designed for single organizations and do not facilitate collaboration across multi-company networks, which complicates logistics tracking.
4. **Potential of Real-time Technologies**: The study argues that real-time tracking, integrated with modern IT solutions, can significantly enhance supply chain visibility, reduce operational costs, and improve customer satisfaction.
5. **Collaborative Networks**: The paper stresses the need for inter-company cooperation in tracking logistics, proposing the use of Electronic Data Interchange (EDI) and XML to automate tracking information exchange between partners.

**Conclusions:**

The authors conclude that there is significant untapped potential for real-time tracking and tracing technologies in logistics networks. They call for the development of standardized, scalable, and collaborative systems that can improve both the efficiency and transparency of logistics operations. The study also emphasizes the need for future research to explore practical implementations of these technologies in real-world business cases.