

## Improving manufacturing supply chain performance: Nexus of industrial Internet of Things, blockchain technology and innovativeness

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### ABSTRACT

**Purpose:** This paper aims to model the mediating effects of facilitating conditions and innovativeness in the industrial Internet of Things (IIoT) and blockchain technology (BT) on manufacturing supply chain performance (MSCP). **Design/methodology/approach:** Partial least square structural equation modelling was used to test the goodness of the model fit and hypotheses by using SmartPLS 3.3.3. Data was collected from 464 managers in Pakistan's automotive industry through a stratified random sampling technique. **Findings:** IIoT, BT, facilitating conditions and innovativeness significantly enhanced the MSCP. Therefore, the mediation between facilitating conditions and innovativeness to IIoT and BT adoption was significant in the MSCP. **Practical implications:** The adoption of digital technology to improve the MSCP can assist companies in reducing the cost of complex procurement, production and distribution processes through secured and efficient operations. Furthermore, organisations must establish a conducive atmosphere that fosters experimentation, collaboration and resource allocation towards technological advancements to capitalise on the advantages of these technologies effectively. **Originality/value:** This study developed a research model integrating IIoT technology, BT, facilitating conditions and innovativeness to determine the MSCP under the resource-based view theory. The outcome of this study could help organisations design a framework to improve supply chain performance by integrating innovativeness.

### KEYWORDS

Blockchain technology; Facilitating conditions; Industrial Internet of Things; Innovativeness; Manufacturing supply chain performance

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