**The role of digital technologies in enhancing sustainability and lean management in organizations**

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**Abstract:**

The Internet of Things (IoT), artificial intelligence (AI), and blockchain are examples of digital technologies that have revolutionised how businesses operate and allocate their resources. These technologies have recently become potent instruments for enhancing lean and sustainable management practises within organisations. The purpose of this conceptual paper is to investigate how digital technology might improve lean management and sustainability inside organisations. The paper offers a thorough analysis of the related literature, emphasising the advantages and difficulties of utilising digital technologies for sustainability and lean operations. The study identifies a number of ways in which digital technologies might support sustainability and lean management, including waste reduction, improved supply chain transparency, increased resource efficiency, and real-time monitoring and decision-making. However, there are drawbacks to adopting digital technologies for sustainability and lean management, including worries about data security and privacy, a lack of interoperability, and technological complexity. The need of organisations properly evaluating the advantages and difficulties of digital technologies for sustainability and lean management and developing strategies to successfully apply these technologies is emphasised in the paper's conclusion. The study adds to the body of knowledge on digital technologies and sustainability by offering a conceptual framework for further study and application.

Keywords: Digital technologies, sustainability, lean management, IoT, AI, blockchain.