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## Patent Search

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#### Abstract:

Applications of Artificial Intelligence and Machine Learning in Supply Chain Management: A Comprehensive Review ABSTRACT: By assessing the current state of artificial intelligence (AI) and machine learning (ML) implementations within supply chains (SC), the ultimate goal of this project is to identify promising future research directions. Design/methodology/approach This study employs a technique known as a systematic literature review in order to analyse the articles accessible via the databases V Science, Scopus, and Google Scholar. In these articles, AI and ML were discussed in relation to the supply chain. After the aforementioned three database queries, 38 studies were reduced to 50 after inspection, organisation, and evaluation. The study evaluates and analyses in depth the fifty books that made the final lists as being pertinent and beneficial to the study of artificial intelligence and machine learning (SCM). Findings Despite the fact that artificial intelligence (AI) and machine learning applications are in their infancy, they hold great promise for enhancing supply chain efficiency. Researchers in the fields of artificial intelligence and machine learning optimisation models for logistics networks that were found to be effective. By integrating AI and ML into their supply chain networks, businesses can achieve a competitive advantage. Numerous researchers believe that AI and ML are underutilised and that their tools and strategies could considerably increase the overall value of the supply chain. However, some academics believe AI and ML are currently beneficial. The findings of the study indicate that the deployment of AI and ML can mitigate the bullwhip effect contributing to the efficient and effective operation of supply chains.

#### Complete Specification

##### Description:DESCRIPTIONS

Despite the fact that artificial intelligence (AI) and machine learning (ML) applications are in their infancy, they hold great promise for enhancing supply chain efficiency. Researchers in the fields of artificial intelligence and machine learning devised optimisation models for logistics networks that were found to be effective. By integrating AI and ML into their supply chain networks, businesses can achieve a competitive advantage. Numerous researchers believe that AI and ML are underutilised and that their tools and strategies could considerably increase the overall value of the supply chain. However, some academics believe AI and ML are currently beneficial. The findings of the study indicate that the deployment of AI and ML can mitigate the bullwhip effect, contributing to the efficient and effective operation of supply chains. The study also highlights research limitations. This study's purview was limited because it focused solely on AI and ML applications in the supply chain. It was determined that the research was too extensive to incorporate these additional dimensions; therefore, they were left for future research studies that other researchers could investigate and pursue. However, other dimensions, such as big data and robotics, could be investigated. Meaning for daily existence. This study paves the way for future academic investigation into the potential applications of AI and ML in supply chain management, as well as the models that have been explored and validated to determine their viability. In addition, the analysis unearthed a treasure trove of research data that validated the uncharted territories of AI and ML. These prospective research avenues were highlighted because they may be of great interest to other academics. Originality/value This research stands out as a significant contribution because it is the first to investigate the effects of AI and ML across the board in SC. While other studies have discussed the use of artificial intelligence in the manufacturing and transportation industries, ours is the first to focus on these specific industries. This study analyses a number of highly cited papers, categorises them into three groups, and suggests future directions for the field. From the time when Herbert Simon famously predicted in 1965 that "Machines will be capable of doing any work a man can do" to the

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