

Impact of AI-based predictive analytics on demand forecasting in ERP systems: A Systematic Literature Review

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Abstract

Artificial intelligence (AI) has revolutionized demand forecasting within Enterprise Resource Planning (ERP) systems, offering a powerful tool to enhance accuracy and efficiency in predicting future demand patterns. This literature review explores the impact of AI-based predictive analytics on demand forecasting in ERP systems by synthesizing and analyzing existing research. This paper provides a comprehensive examination of the transformative effects of AI-driven demand forecasting across diverse industries, including fashion retail, biopharmaceuticals, energy management, and transportation. We highlight the unique benefits and applications of AI-driven demand forecasting, such as anticipating customer needs, optimizing inventory levels, and making data-driven decisions, ultimately leading to a competitive edge in the marketplace. Our study emphasizes the importance of AI integration into ERP systems for businesses seeking to enhance decision-making and achieve organizational success in today's dynamic and competitive business landscape. By providing valuable insights and showcasing significant improvements in forecasting

accuracy, real-time insights, supply chain efficiency, and risk management facilitated by AI-based predictive analytics, this research contributes to advancing knowledge in the field and offers practical guidance for businesses and researchers alike.

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