

How AI Usage Impacts Supply Chain and Firm Performance: The Mediating Role of Supply Chain Resilience

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Abstract

Purchasing and supply management (PSM) is a critical driver of supply chain and firm performance, and artificial intelligence (AI) is increasingly recognized for its potential to improve PSM practices. Extant research lacks clarity on the mediating mechanisms that translate AI usage into supply chain and firm performance. This study addresses this gap by examining the mediating role of supply chain resilience in the AI usage – performance chain. Based on survey data from 131 PSM professionals and by employing structural equation modeling, this study establishes supply chain resilience as a key mediator that explains the performance impact of AI usage in PSM. We also advance the literature by developing a measurement model of AI usage in PSM that specifies the tasks affected by AI applications. Overall, this research provides novel theoretical insights and actionable guidance for converting AI usage into performance improvements within PSM.

Track: Business-To-Business Marketing & Supply Chain Management