Decisional Guidance to Promote Motivation in Supply Chain Decision Making

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Abstract

In early 2022, supply chains encountered unprecedented challenges and inefficiencies due to the Covid-19 pandemic, leading to exaggerated fluctuations in inventory levels caused by small changes in customer demand. This article's primary focus is to understand how the availability and presentation of information influenced supply chain members' decision-making processes. The study aims to explore the effects of providing information to supply chain managers on overall supply chain performance, emphasizing how the information is presented rather than merely its availability. While previous research has recognized the positive impact of information sharing on supply chain operations, little attention has been given to how information is presented, such as through dashboards or information displays, to mitigate supply chain inefficiencies. Our study employs bounded rationality theory, intrinsic motivation, and the knowledge-based view to address this gap. Through simulation and experimental design, followed by psychometric modeling, the researchers seek insights into how different information is displayed for inventory and upstream orders. We found that display treatment for inventory and upstream incoming orders significantly impacted overall performance. Findings also include psychometric results indicating that knowledge acquisition and shared meaning are crucial in decision-makers' perceived performance after simulation and display treatments. Moreover, information distribution among supply chain participants will likely contribute to cognitive overload and reduce motivation to improve decision-making.

Keywords: Information display, supply chain performance, bounded rationality, intrinsic motivation

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