Title: Roles of top management support and compatibility in big data predictive analytics for supply chain collaboration and supply chain performance.

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Abstract: With the global digitalisation, big data has received growing attention from academicians and practitioners. However, only a few empirical studies examined the benefits of big data predictive analytics (BDPA) and its influence on supply chain collaboration (SCC) and supply chain performance (SCP). Addressing the identified gaps of the implementation of organisational information processing theory (OIPT), the current study provided the foundation to develop a conceptual framework. All relevant data were collected from 197 employees in the Chinese logistics industry. Partial least squares–structural equation modelling technique was performed. The obtained empirical results supported top management support and compatibility as critical factors for the adoption of BDPA. Moreover, BDPA exhibited positive influence on SCC and SCP. Additionally, SCC mediated the relationship between BDPA and SCP. This study presented significant theoretical contributions and provided guidelines that can benefit policymakers and organisations in the efforts of implementing BDPA for enhanced SCP. After all, improving SCP would benefit customers and the society in the case of reduction and wastage of resources.

Keyword: Big Data Predictive Analytics, Organisational Information Processing Theory, Supply Chain Performance, Supply Chain Collaboration, Top Management Support, Compatibility.

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