

When Agility Meets Technology: Explaining Supply Chain Resilience Through Digital Adoption and Risk Management Maturity

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Abstract

In this study, we examine the role project management practices play in impacting the outcomes of the supply chain, the role of Digital Technology Adoption as a mediator and Risk Management Maturity as a boundary condition in the influence of Agile Project Management in the context of supply chain resilience. As the demand for resilience increases on organizations, it is crucial to understand how agile project practices can lead to real-world benefits in terms of resilience and when. The authors analyse the indirect effects of Agile Project Management Practices on Supply Chain Resilience as well as the direct effects in this research and how the level of maturity in digital technology and risk management of an organisation influences the magnitude of the effects.

The study is designed using quantitative research design with a cross-sectional approach and the testing technique is a technique of Structural Equation Modelling, in addition to the statistical analysis results of the measurement model and the structural model, which were determined from the survey data from project and supply chain management practitioners in project-based organizations. This approach not only enables the direct impact of the Agile Project Management Practices on Supply Chain Resilience to be examined, but also the indirect impact of Digital Technology Adoption as a cascade effect of Agile Project Management Practices and the moderating role of Risk Management Maturity between Digital Technology Adoption and Resilience.

The findings anticipated are that Agile Project Management Practices have a positive direct and indirect effect on Supply Chain Resilience; and that Digital Technology Adoption is a key determinant that enables the agile practices to be realized as a resilience outcome. This needs to be further bolstered by the maturity of the Risk Management capability: the more mature, the more value gained from adopting digital technology.

In conclusion, the study will establish clearly the synergy between agile project management practices, digital technology adoption and risk management maturity, and overall, the effect that this synergy will have on the supply chain's resilience, resulting in more adaptive and disruption-ready supply chains. The study can be useful so long as the principles of agile project management are adapted to the supply chain management and have practical implications that project and supply chain managers should take into account when developing a resilience plan for their project or supply chain using structured, technology-driven approaches.

Keywords:

Agile Project Management; Digital Technology Adoption; Risk Management Maturity; Supply Chain Resilience; Project Management; Supply Chain Management