

The Impact of Supply Chain Risk on Supply Chain Agility Performance with the Mediating Role of Supply Chain Integration: Empirical Study of Manufacturing Industry in Sri Lanka

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In Sri Lanka, the manufacturing industry, including apparel, and rubber products, is a major economic contributor, being the second-largest contributor to GDP. However, the industry continuously faces supply chain disruptions, such as longer delivery times, high work backlogs, and stock shortages. These challenges cause significant setbacks for organizations, prompting them to adopt agile practices and improve coordination between internal and external parties. Previous studies reveal inconsistent findings on the effects of supply chain risk on integration and its subsequent effect on agility performance. Therefore, this study was carried out in the context of manufacturing organizations to examine how supply chain disruptions affect supply chain agility performance where supply chain integration mediates the relationship. To examine this phenomenon, a structured self-administered questionnaire was circulated among selected organizations that fit criteria such as operational scale, supply chain involvement, and willingness to participate. The collected data was analyzed using SPSS and SmartPLS 4 software packages. Using a sample of 102, mainly in apparel, rubber, food, and beverages, it was found that supply chain risk significantly influences supply chain agility performance. At the same time, this study suggests that supply chain risk significantly affects supply chain integration, and in turn, supply chain integration significantly impacts supply chain agility performance. Moreover, this study reveals that supply chain integration partially mediates the relationship between supply chain risk and supply chain agility performance. It further reveals that the mediation effect is manufacturing organizations in Sri Lanka are required to adopt agility in their supply chains due to the high degree of risk in the supply chain ecosystem while adopting supply chain integration as the mediator. Further, this study encourages the government to incentivize collaboration among vendors and manufacturers, invest in education and resources for risk management, and support initiatives to enhance supply chain agility performance.

Keywords: Manufacturing Industry, Supply Chain Agility Performance, Supply Chain Integration, Supply Chain Risk