

ABSTRACT

## The Interplay Between Supply Chain Resilience and Climate Change

Mackenzie Freeman

**Keywords:** supply chain resilience, climate change, Complex Adaptive Systems

Supply chains – a web of organisations and actors from raw material to consumption – are no longer linear; they instead make up a network of interconnected and overlapping global suppliers. Simultaneously, climate change has become one of, if not the greatest challenge of the modern world, materialised by increasing temperatures and sea levels, and intensified extreme weather events. This era of increased turbulence needs new ways of thinking to build resilience strategies in the face of such disruptions. Supply chain resilience (SCR) strategies have typically been based on an equilibrium-seeking system whereby the goal is to bounce back to the pre-disruption state or bounce forward to a better state. This research borrows the Complex Adaptive Systems (CAS) perspective which acknowledges the environment as a continuously evolving system that responds to multiscale interactions and feedback between different actors. This CAS perspective of SCR seeks to maintain the core functionality by adapting, evolving, and transforming to the dynamic environment. This research aims to explore the interrelationship between SCR and climate change across multiple temporal and spatial scales through multiple case studies. In this presentation, I will display initial findings from the pilot study focusing on three cases of New Zealand multinationals. These findings are formed exclusively through secondary data collected from case study, company reports and documents, press releases and databases, which will later be used to complement interviews and focus groups with companies' executives. I will demonstrate how increased collaboration and agility along the supply chain is needed in the face of increasing climate related disruptions. Given that supply chain interactions are a major contributor to climate change, this presentation also intends to explore ways in which supply chains can operate more sustainably as part of a continuously evolving process of resiliency.