

Assessing Supply Chain Risk in Covid-19 Like Pandemic Situations

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Abstract

The supply chain management in uncertain environment is very complex and challenging as the nature and extent of disruptions in covid-19 like pandemic situations are highly unpredictable and such disruptions may cause huge adverse impact on supply-demand cycle and company's business. It therefore becomes imperative to critically investigate risk associated with supply chain as it plays an integral part of business for operational excellence, customer value, profitability, and agility because such disturbances induce greater instability in the supply chain and thereby severely affect production, growth, and sustainability of the company. The objective of the present study is to identify the vulnerable components of supply chain and quantify the supply chain risks so that appropriate resilient strategies can be evolved to reduce adverse impacts of disruptions and ensure sustained economic growth in covid-19 like pandemic situations. The study utilizes empirical evidence-based analysis of data obtained through a systematized structured questionnaire survey from several industries for identifying and quantifying the supply chain risks. The study reveals that the supply, demand, and transportation risks are dominant and have large potential to adversely affect the company during covid-19 like pandemic situations, whereas the process, control, and environmental risks are comparatively less dominant, and the industries have greater chance to manage these risks effectively. A comparative analysis of risk indicators has also been carried out for supply chain intensive companies and less supply chain intensive companies. The study would be useful in evolving appropriate rapid response measures to make the supply chain more resilient.

Keywords: covid-19, disruption, empirical analysis, risk management, supply chain resilience