

Supply Chain Resilience Triangle: The Study and Development of a Framework

Authors : M. Bevilacqua, F. E. Ciarapica, G. Marcucci

Abstract : Supply Chain Resilience has been broadly studied during the last decade, focusing the research on many aspects of Supply Chain performance. Consequently, different definitions of Supply Chain Resilience have been developed by the research community, drawing inspiration also from other fields of study such as ecology, sociology, psychology, economy et al. This way, the definitions so far developed in the extant literature are therefore very heterogeneous, and many authors have pointed out a lack of consensus in this field of analysis. The aim of this research is to find common points between these definitions, through the development of a framework of study: the Resilience Triangle. The Resilience Triangle is a tool developed in the field of civil engineering, with the objective of modeling the loss of resilience of a given structure during and after the occurrence of a disruption such as an earthquake. The Resilience Triangle is a simple yet powerful tool: in our opinion, it can summarize all the features that authors have captured in the Supply Chain Resilience definitions over the years. This research intends to recapitulate within this framework all these heterogeneities in Supply Chain Resilience research. After collecting a various number of Supply Chain Resilience definitions present in the extant literature, the methodology approach provides a taxonomy step with the scope of collecting and analyzing all the data gathered. The next step provides the comparison of the data obtained with the plotting of a disruption profile, in order to contextualize the Resilience Triangle in the Supply Chain context. The tool and the results developed in this research will allow to lay the foundation for future Supply Chain Resilience modeling and measurement work.

Keywords : supply chain resilience, resilience definition, supply chain resilience triangle

Conference Title : ICSCOR 2017 : International Conference on Supply Chain and Operations Resilience

Conference Location : Amsterdam, Netherlands

Conference Dates : August 07-08, 2017