Methods to Develop Supply Chain Risk Management Indices/Matrices/Models: A Systematic Literature Review

Jayatilake A.C.1*, Silva C.W.C.², and Fernando M.A.C.S.S.³

¹ Faculty of Graduate Studies, Sabaragamuwa University of Sri Lanka
²Department of Decision Sciences, University of Sri Jayewardenepura
³Department of Economics and Statistics, Sabaragamuwa University of Sri Lanka
*amaliechathurika@gmail.com

Supply Chain Risk Management (SCRM) indices/matrices/models are ideal tools that help companies evaluate their current risk mitigation capabilities and thus prepare for proactive actions. Though there has been considerable growth in SCRM research, comprehensive literature reviews specifically focusing on methods used to develop SCRM indices/matrices/models were not available. Hence, this paper is sought to review the literature on available methods for developing SCRM indices/matrices/models and to identify their limitations. A review was conducted on a three-stage systematic search through sourcing, screening, and analysis to achieve these objectives. First, the search string was identified, was searched in multiple databases under sourcing and retrieved 477 articles. Next, under the article screening, they were further screened thrice based on the titles, keywords, references, and duplicate results and ended up with 17 journal articles and 3 conference papers. These 20 papers were taken for the final stage of the reviewing and analysis. The findings of this review were mainly classified based on their applications. The limitations of the existing SCRM matrices and the literature gaps that create the avenues for future research were identified. This research has significant implications as it recaps recent literature on the topic into one place, and improves the practitioners' awareness of useful SCRM indices.

Keywords: *Literature review, Supply chain risk management, Supply chain risk management indices/matrices/models, Three-stage systematic search*