

TQM Practices on Supply Chain Performance of Third- Party Logistics Services in Sri Lanka: The Moderating Role of Green Supply Chain Practices

K. Nawurunnage¹, A.P.K.J. Prasadika², A.N. Wijayanayake^{3*}

¹*Department of Industrial Management, University of Kelaniya, Kelaniya, Srilanka, sandunik_im17068@stu.kln.ac.lk*

²*Department of Industrial Management, University of Kelaniya, Kelaniya, Srilanka, apkjp201@kln.ac.lk*

³*Department of Industrial Management, University of Kelaniya, Kelaniya, Srilanka, anni@kln.ac.lk*

The growing need to address the threat of global warming and greenhouse gas emissions has placed immense pressure on logistics companies to adopt sustainable practices. With logistics operations being a significant source of greenhouse gas emissions, incorporating green supply chain management practices (GSCM) has become crucial to achieving environmental sustainability within the third-party logistics (3PL) industry. Exploring the existing literature under the concepts of Total Quality Management and Green Supply Chain Management reveals the need for future investigations into how those practices might potentially improve the logistics firm's performance to achieve sustainability. Therefore, the main objective of this study is to identify the interrelationships of TQM practices and supply chain performance third- party logistics industry in terms of overall performance and identify the suitable TQM practices that can be applied to enhance the overall performance of Sri Lankan 3PLs and assess moderating effect of GSCM practices on that TQM- performance relationships. An online survey instrument was used to collect the data from executives, senior executives, and managers of 3PL firms in Sri Lanka. The statistical data analysis was done using PLS-SEM. The results found that top management support, customer focus, statistical process control, and continuous improvements are the significant total quality management practice for overall performance in the Sri Lankan 3PL industry. The study's findings are useful for the top management of 3PLs, policymakers, and academia to identify the level of GSCM implementation within the industry, and results provide insights into further considerations regarding the implementation of GSCM practices and TQM practices to achieve the supply chain performance of the 3PLs while achieving sustainability.

Keywords: *total quality management, third-party logistics, green supply chain management practices, performance, PLS-SEM*