

The Impact of Leanness on Supply Chain Sustainability: Examining the Role of Sustainability Control Systems

Abstract

The aim of this study is to examine the impact of leanness on supply chain sustainability. More specifically, the study examines (i) what is the impact of leanness on supply chain sustainability, and (ii) what is the role of sustainability control systems in implementing lean practices. Survey data were collected from supply chain managers in the manufacturing sector in Sri Lanka. Hierarchical multiple regression analysis was employed to examine the impact of leanness on supply chain sustainability. The findings revealed that lean manufacturing practices such as just-in-time deliveries, quality management, employee involvement and environmental management practices has a positive significant impact on supply chain sustainability. The moderating role of sustainability control systems in implementing lean manufacturing practices examines in two perspectives: enabling use of sustainability control systems and controlling use of sustainability control systems. Results of this study revealed that enabling use of sustainability control systems positively moderate the relationship between leanness and supply chain sustainability. Contrary to study's proposition, controlling use of sustainability control systems also shown a positive moderating impact on the above relationship. According to the findings, there's no significant impact of interacting variables on environmental performance and social performance. The study enhances the understanding on the importance of using sustainability control systems in implementing lean manufacturing practices as a means of achieving supply chain sustainability. Results revealed that SMEs in Sri Lanka use enabling and controlling sustainable systems to improve the economic performance by investing on JIT, Quality management, environmental management and employee involvement.

Key Words: Leanness, Supply Chain Sustainability, Sustainability Control Systems