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## **Green supply chain management and CO<sub>2</sub> emissions performance in Japanese manufacturing firms**

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### **ABSTRACT**

The focus of corporate environmental management has shifted from individual firms to supply chains, and so-called green supply chain management (GSCM). This study focuses on Japanese manufacturing firms, and analyzes the determinants of their GSCM and the influence of their GSCM on their own CO<sub>2</sub> emissions performance. The main findings are as follows. First, firms with more environmental consciousness of purchasing division, greater difficulty in CO<sub>2</sub> measurement, stronger relationship-specific investment, weaker supplier concentration, and less stringency of environmental policies are more likely to implement GSCM. In addition, these factors indirectly and directly influence CO<sub>2</sub> emissions performance. Second, although firms implementing GSCM in general are not more likely to emit less CO<sub>2</sub> or reduce their emissions further, those in mechanical assembling industries are more likely to emit less CO<sub>2</sub> and those in materials processing industries are more likely to reduce CO<sub>2</sub> emissions further.

**Keywords:** Green supply chain management (GSCM), Less CO<sub>2</sub> emissions, Further CO<sub>2</sub> emissions reduction, Determinants and influence of GSCM