



The moderating effects of technological and demand uncertainties on the relationship between supply chain integration and customer delivery performance

Technological
and demand
uncertainties

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Abstract

Purpose – The purpose of this paper is to test the moderating effects of technological and demand uncertainties on the relationship between supply chain integration and customer delivery performance.

Design/methodology/approach – Based on a survey questionnaire with 151 participants in the Thai automotive industry supply chain, hierarchical regressions are used to test the moderating effects.

Findings – Internal and supplier integration, but not customer integration, were positively associated with customer delivery performance. Technological and demand uncertainties were found to moderate the relationships between internal integration and customer delivery performance, and supplier integration and customer delivery performance.

Research limitations/implications – The moderating effects of technological and demand uncertainties in the Thai automotive just-in-time (JIT) environment are explained. This research contributes to the development of a contingency theory of supply chain integration suggesting that the impacts of supply chain integration on customer delivery performance vary under different levels of technological and demand uncertainties.

Practical implications – Managers recognize the diminishing effects of internal integration and supplier integration under demand uncertainty, and the increasing effect of supplier integration under high technological uncertainty.

Originality/value – This study contributes to the supply chain management literature by clarifying the moderating effects of technological and demand uncertainties on the relationship between supply chain integration and customer delivery performance.

Keywords Supply chain management, Demand, Service delivery, Customer services quality, Automotive industry, Taiwan

Paper type Research paper



1. Introduction

The positive impact of supply chain integration on delivery performance has long been recognized by the logistics and supply chain management literature (Heskett, 1977; Birou *et al.*, 1998; Bowersox *et al.*, 1999; Stank *et al.*, 1999; Iyer *et al.*, 2004; Germain and Iyer, 2006). Furthermore, some studies have concluded that different dimensions of