

供應鏈整合的驅動力、整合障礙、整合程度及績效關係之研究

江敬家、曾耀煌

E-mail: 360565@mail.dyu.edu.tw

摘要

近來由於全球化的影響，競爭已趨向為整個供應鏈系統與另一供應鏈系統的互相競爭，因此本研究將探討供應鏈整合的驅動力、整合障礙、整合程度及績效之間的關係。透過文獻探討，發展出本研究的研究架構、研究假設及各變數的操作性定義，研究對象則針對2011中華徵信所公布的台灣地區製造業前2,000大型企業進行調查，共回收148份有效問卷，採用SPSS12.0和AMOS18.0統計軟體分析。研究結果發現，供應鏈整合的驅動力對整合程度有顯著正向影響；供應鏈整合的障礙對整合程度有顯著負向影響；供應鏈整合的驅動力對績效無顯著正向影響；供應鏈整合的障礙對績效無顯著負向影響；整合程度對績效無顯著正向影響；另外在現況調查方面發現台灣的製造業整體上在內部整合方面做的比供應商整合、顧客整合還要好，而績效方面則是交期績效和品質績效較優於成本績效和彈性績效。最後，本研究提出了研究結論說明了調查現況的發現、變數的實證分析結果、管理上可供參考的地方以及後續限制與後續研究建議。

關鍵詞：供應鏈整合驅動力、供應鏈整合障礙、整合程度、績效

目錄

中文摘要	iii	英文摘要	iii
iv 誌謝詞	v	內容目錄	vi
	viii	圖目錄	x
	1	第一章 緒論	1
	1	第一節 研究背景與動機	1
	2	第二節 研究目的	2
	2	第三節 研究流程	2
	4	第二章 文獻探討	4
	4	第一節 供應鏈整合的驅動力	4
	14	第二節 供應鏈整合的障礙	14
	20	第三節 整合程度	20
	26	第四節 供應鏈績效	26
	31	第五節 供應鏈整合的驅動力、供應鏈整合的障礙、整合程度、供應鏈績效之相關研究	31
	37	第三章 研究方法	37
	37	第一節 研究架構	37
	40	第二節 研究假設	40
	46	第三節 各變數操作性定義與衡量	46
	46	第四節 研究對象與資料蒐集	46
	50	第五節 統計分析方法	50
	59	第四章 研究結果分析	59
	59	第一節 敘述性統計分析	59
	61	第二節 驗證性因素分析	61
	66	第三節 研究模式變數多元常態檢定	66
	72	第四節 信度分析與效度分析	72
	72	第五節 整體模式分析	72
	74	第六章 結論與建議	74
	74	第一節 研究結論	74
	74	第二節 管理意涵	74
	74	第三節 研究限制與後續研究建議	74
	88	參考文獻	88
	88	附錄 研究問卷	88

參考文獻

一、中文部分 中華民國物流協會（1997），認識物流-物流八問，中華民國物流協會。吳秉諭(2002)，從關係涉入觀點探討組織間合作關係，私立靜宜大學企業管理研究所，碩士論文。吳智仁（2001），電子商務應用與供應鏈績效間之相關性 - 以國內資訊產業為例，政治大學資訊管理學系碩士學位論文。吳燦銘(2009)，跨組織整合因素之研究-以物流業為例，靜宜大學資訊碩士在職專班碩士論文。林清河(2003)，供應鏈參與策略、資訊科技應用能力、製造參與策略、顧客滿意度與組織績效之互動相關性研究，行政院 國家科學委員會補助專題研究計畫成果報告。胡正平(2005)，影響供應鏈整合程度因素之研究，銘傳大學管理學院高階經理碩士學程在職專班碩士論文。黃銘章、邱秋燕、洪俊欽(2006)，中心廠商的供應鏈管理能力對供應鏈整合之影響，東吳經濟商學學報，第五十三期，1-32 頁。翁曉玲(2007)，綠色供應鏈管理活動之整合模式實證研究-以台灣中小企業為例，國立台灣海洋大學航運管理學系碩士論文。蘇雄義(2005)，物流與運籌管理:觀念、機能、整合，台北:華泰文化。蘇雄義(2006)，物流與運籌管理:觀念、機能與整合，台北:華泰文化。蘇義雄(2007)，物流與運籌管理 - 觀念、機能、整合，台北:華泰文化。陳沛如(2004)，組織因素、科技因素、協同能力、作業能力與供應鏈績效間之架構性關係研究，國立成功大學工業與資訊管理系碩士班碩士論文。曾鼎霖(2005)，資訊科技應用、夥伴關係對於供應鏈管理及供應鏈績效的影響，國立成功大學國際企業研究所碩士論文。張文玲(2007)，ERP 與電子流程管理系統整合關鍵因素之研究，靜宜

大學資訊管理學系碩士論文 何森雄 (2003), 台中港倉儲轉運公司經營績效評估, 逢甲大學工業工程研究所在職專班碩士論文。謝芬蘭(2009), 工具機產業之供應鏈整合障礙與供應鏈整合程度對供應鏈績效之影響效果, 國立彰化師範大學企業管理學系國際企業經營管理研究所。榮泰生(2009), *Amos與研究方法*, 台北:五南出版社。蕭文龍(2009), *多變量分析最佳入門實用書*, 台北:碁峰資訊。

二、英文部分 Barki, Henri and Alain Pinsonneault (2005). A model of organizational integration, implementation effort, and performance. *Organization Science*, 16(2), 165-179. Barney, Jay B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120. Baron, David P. (1997). Integrated strategy, trade policy, and global competition. *California Management Review*, 39(2), 145-169. Barratt, Mark (2004). Understanding the meaning of collaboration in the supply chain. *Supply Chain Management: An International Journal*, 9(1), 30-42. Beamon, B. M. (1999). Measuring supply chain performance. *International Journal of Operations and Production Management*, 19(3), 275-292. Bello, Daniel C. and David I. Gilliland (1997). The effect of output controls, process controls and flexibility on export channel performance. *Journal of Marketing*, 61(1), 22-38. Bowersox, D.J., Closs, D.J. and Stank, T.P. (2000). Ten mega-trends that will revolutionize supply chain logistics. *Journal of Business Logistics*, 21(2), 1-16. Cannon, J. P., William, D. and Perreault, J. R. (1999). Buyer-seller relationships in business markets. *Journal of Marketing Research*, 31(11), 439-460. Christopher, M. (2005). *Logistics and supply chain management*, 3rd ed. Pearson Education, London. Chopra, S., & Meindl, P. (2004). *Supply chain management: Strategy, planning and operations*. New York: Prentice Hall. Cooper, M.C., Lambert, D.M. and Pagh, J.D. (1997). Supply chain management: more than a new name for logistics. *International Journal of Logistics Management*, 8 (1), 1-14. Corsten, Daniel and Jan Felde (2005). Exploring the performance effects of key-supplier collaboration. *International Journal of Physical Distribution and Logistics Management*, 35(6), 445-461. Coyle, J. J. & Bardi, E. J. & Jr, C. J. L. (2003). The management of business logistics: A supply chain perspective. The Thormosn Learning inc. CSCMP. (2003). Definition of Supply Chain Management [Online]. Available: <http://bgo.tw/qvwio> Daugherty, Patricia J., Matthew B. Myers, and R. Glenn Richey, Jr. (2002). Information support for reverse logistics: The impact of relationship commitment. *Journal of Business Logistics*, 23(1), 85-106. David Simchi-levi, Philip Kaminsky, & Edith Simchi-levi (2003). *Designing and managing the supply chain: Concepts, strategies, and case studies*. New York: McGraw Hill. Daugherty, Patricia J., R. Glenn Richey, Jr., Anthony S. Roath, Soonhong Min, Haozhe Chen, Aaron D. Arndt, and Steven E. Genchev (2005). Is collaboration paying off for firms? " *Business Horizons*, 49, 61-70. Dyer, H. J. (2000). Collaborative advantage: Winning through extended enterprise supplier networks. New York: Oxford University Press. Edward H. Frazelle (2002). *Supply chain strategy*. McGraw Hill. Ellinger, Alexander E., Scott B. Keller, and John D. Hansen (2006). Bridging the divide between logistics and marketing: facilitating collaborative behavior. *Journal of Business Logistics*, 27(2), 1-27. Ellram, L.M. and Cooper, M.C. (1990). Supply chain management, partnerships, and the shipper-third-party relationship. *International Journal of Logistics Management*, 1(2), 1-10. Fawcett, S.E. and Magnan, G.M. (2002). The rhetoric and reality of supply chain integration. *International Journal of Physical Distribution and Logistics Management*, 32(5), 339-51. Flynn, B. B., Huo B. & Zhao. X. (2010). The impact of supply chain integration on performance: A contingency and con-figuration approach. *Journal of Operations Management*, 28(1), 58-71. Frohlich, Markham T. (2002). E-integration in the supply chain: Barriers and performance. *Decision Sciences*, 33(4), 537-556. Gagne, Maryle ' ne, and Edward L. Deci (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(3), 331-362. Gatignon, H. and Xuereb, J.-M. (1997). Strategic orientation of the firm new product performance. *Journal of Marketing Research*, 34 (1), 77-90. Germain, Richard and Karthik N. S. Iyer (2006). The interaction of internal and downstream integration and it ' s association with performance. *Journal of Business Logistics*, 27, (2), 29-52. Gimenez, Cristina and Eva Ventura (2005). Logistics-production, logistics-marketing and external integration: Their impact on performance. *International Journal of Operations and Production Management*, 25(1), 20-38. Golicic, Susan L. and John T. Mentzer (2005). Exploring the drivers of relationship magnitude. *Journal of Business Logistics*, 26(2), 47-71. Gregory M. and Stanley E. (2001). Achieving world-class supply chain alignment: Benefits, barriers, and bridges, center for advanced purchasing studies. *Journal of Supply Chain Management*, 22(3), 33-46. Gulati, R. (1998). Alliance and network. *Strategic Management Journal*, 19(4), 293-317. Halley, A. and Nollet, J. (2002). The supply chain: The weak link for some preferred suppliers. *Journal of Supply Chain Management*, 38(3), 39-47. Helmick, J. S. (2000). 21st century logistics: Making supply chain integration a reality. *Transportation Journal*, 40(1), 48-49. Hertenstein, J.H. And Platt, M.B. (2000). Performance measures and management control in new product development. *Accounting Horizon*, 14(3), 303-323. Hill, C. and Jones, R. (2007). *Strategic management theory an integrated approach*. Houghton Mifflin, USA. Hunt, S.D. and Morgan, R.M. (1995). The comparative advantage theory of competition. *Journal of Marketing*, 59(2), 1-15. Jayaram, J., Vickery, S.K. and Droge, C. (2000). The effects of information system infrastructure and process improvements on supply-chain time performance. *International Journal of Physical Distribution & Logistics Management*, 30(4), 314-30. Jap, Sandy D. (2001). Pie sharing ' in complex collaboration contexts. *Journal of Marketing Research*, 38(1), 86-99. Jap, Sandy D., and Jakki Mohr (2002). Leveraging internet technologies in B2B relationships. *California Management Review*, 44(4), 24-38. Joel D. Wisner, G. Keong Leong, Keah-Choon Tan (2005). *Principles of supply chain management: A balanced approach*. Thomson Learning. Kline, R. B. (2005). *Principles and practice of structural equation modeling*. New York: Guilford Press. Lambert, D. M. and Martha C. C. (2000). Issues in supply chain management. *Industrial Marketing Management*, 29(1), 65-83. Li, Zhan G. and Rajiv P. Dant (1997). An exploratory study of exclusive dealing in channel relationships. *Journal of the Academy of Marketing Science*, 25(3), 201-213. Lublinsky, B. (2000). Achieving the ultimate eai implementation. *eAI Journal*, 27-31. Lusch, Robert F. and James R. Brown, (2006). Interdependency, contracting, and relational behavior in marketing channels. *Journal of Marketing*, 60(4), 19-38. Malhotra, A., Gosain, S., and Sawy, O.A.E. (2005). Absorptive capacity configurations in supply chains: Gearing for partner-enabled market knowledge creation. *MIS Quarterly*, 29(1), 145-87. Maloni, Michael and W. C. Benton (2000). Power influences in the supply chain. *Journal of Business Logistics*, 21(1), 49-73. Mentzer, J.T., DeWitt, W., Keebler, J.S., Min, S., Nix, N.W., Smith,

C.D. and Zacharia, Z.G. (2001). Defining supply chain management. *Journal of Business Logistics*, 22(2), 1-26. Moberg, Christopher R., Thomas W. Speh, and Thomas L. Freese (2003). SCM: Making the vision a reality. *Supply Chain Management Review*, 34-39. Morash, E. A. (2002). Supply chain strategies, Capabilities and Performance. *Transportation Journal*, Fall, 37-54. Mukhopadhyay, T. and Kekre, S. (2002). Strategic and operational benefits of electronic integration in B2B procurement processes, *Management Science*, 48(10), 1301-1313. Narasimhan, R. and Kim, S.W. (2002). Effect of supply chain integration on the relationship between diversification and performance: Evidence from Japanese and Korean firms. *Journal of Operations Management*, 20(1), 303-323. Neely, A. & Gregory, M. & Platts, K. (1995). Performance measurement system design. *International Journal of Operations and Production Management*, 15(4), 80-116. Olavarrieta, Sergio and Alexander E. Ellinger (1997). Resource-based theory and strategic logistics research. *International Journal of Physical Distribution and Logistics Management*, 27(9), 559-588. Pagell, M. (2004). Understanding the factors that enable and inhibit the integration of operations, purchasing and logistics. *Journal of Operations Management*, 22(5), 459-87. Petersen, Kenneth J., Gary L. Ragatz, and Robert M. Monczka (2005). An examination of collaborative planning effectiveness and supply chain performance. *Journal of Supply Chain Management*, 41(2), 14-25. Piplani, Rajesh and Yonghui Fu (2005). A coordination framework for supply chain inventory alignment. *Journal of Manufacturing Technology Management*, 16(5), 598-614. Rai, A., Patnayakuni, R. and Seth, N. (2006). Firm performance impacts of digitally enabled supply chain integration capabilities. *MIS Quarterly*, 30(2), 225-246. Richard B., F. Robert, Nicholas J. (2005). *Operations management for competitive advantage*, 11th ed. McGraw Hill. Richey, Jr., R. Glenn, Patricia J. Daugherty, and Anthony S. Roath (2007). Firm technological readiness and complementarity: Capabilities impacting logistics service competency and performance. *Journal of Business Logistics*, 28(1), 195-228. Ross, D.F. (1998). *Competing through supply chain management*. Chapman and Hall, New York, NY. R. Glenn Richey Jr, Haozhe Chen, Rahul Upreti, Stanley E. Fawcett, Frank G. Adams (2009) The moderating role of barriers on the relationship between drivers to supply chain integration and firm performance. *International Journal of Physical Distribution and Logistics Management*, 39(10), 826-840. R. Glenn Richey, Jr., Anthony S. Roath, Judith M. Whipple, Stanley E. Fawcett (2010). Exploring a governance theory of supply chain management: Barriers and facilitators to integration. *Journal of business logistics*, 31(1), 237-256. Sanders, Nada R. and Robert Premus (2005). Modeling the relationship between IT capability, collaboration, and performance. *Journal of Business Logistics*, 26(1), 1-24. Schmitz, Judith M., Robert Frankel, and David J. Frayer (1995). *ECR alliances: A best practices model*, Washington. DC: Joint industry project on efficient consumer response. Slater, S.F. and Narver, J.C. (1995). Market orientation and the learning organization. *Journal of Marketing*, 59(3), 63-74. Stanley E. Fawcett, Lisa M. ELLRAM, Jeffrey A. OGDEN (2007). *Supply chain management: from vision to implementation*. Pearson Education. Stank, Theodore P., Patricia J. Daugherty, and Alexander E. Ellinger (1999). *Marketing/Logistics Integration and Firm Performance*. *The International Journal of Logistics Management*, 10(1), 11-33. Stank, Theodore P., Scott B. Keller, and David J. Closs (2001). Performance benefits of supply chain logistical integration. *Transportation Journal*, 41(2), 32-46. Stank, Theodore P., Scott B. Keller, and Patricia J. Daugherty (2001). Supply chain collaboration and logistics service performance. *Journal of Business Logistics*, 22(1), 29-48. Stock, J. R., & Douglas, M. L. (2001). *Strategic logistics management*. New York: McGraw Hill. Teigen, R. (1997). Information flow in a supply chain management system. Retrieved Apr. 30, 2011, from <http://www.eil.utoronto.ca/profiles/rune/dip-thesis.html> Tobias Schoenherr & Morgan Swink (2012). Revisiting the arcs of integration: Cross-validations and extensions. *Journal of Operations Management*, 30(1), 99-115. Van Hoek, R. (1998). Logistics and virtual integration. *International Journal of Physical Distribution and Logistics Management*, 28, (7), 508-23. Van Hoek, R. (2000). The role of third-party logistics providers in mass customization. *International Journal of Logistics Management*, 11(1), 37-46. Vickery, S. K., Jayaram, J., Dorge, C., and Calantone, R. (2003). The effects of an integrative supply chain strategy on customer service and financial performance: An analysis of direct versus indirect relationships. *Journal of Operations Management*, 21(5), 523-539. Wheelwright, S. C. and C. Steven (1978). Reflecting corporate strategy in manufacturing decisions. *Business Horizons*, 21(1), 57-66. Williams, L.R. (1994). Understanding distribution channels: an interorganizational study of EDI adoption", *Journal of Business Logistics*, 15(2), 173-203. Wong, C.Y., Boon-itt, S., Wong, C.W.Y. (2011). The contingency effects of environmental uncertainty on the relationship between supply chain integration and operational performance. *Journal of Operations Management*, 29(6), 604-615. Xie, Frank Tian, Talai Osmonbekov, and Wesley Johnston (2005). Covalence and ionic bonding in business-to-business relationships: Insights from Chemistry. *Industrial Marketing Management*, 34(5), 440-446.