

供應商的資訊能力、交易成本、夥伴關係對電子化採購影響之實證研究：以國際企業為例

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摘要

在全球化的趨勢下，企業必須整合供應鏈體系以快速回應顧客需求，才能有效地提昇企業競爭優勢。尤其電子化採購系統更扮演舉足輕重的角色。本研究依供應商的資訊能力、交易成本與夥伴關係的觀點，進行實證分析影響企業採用電子化採購交易之因素。本研究以在台灣的國際企業為對象，並藉由結構方程式(structural equation modeling, SEM)進行分析與驗證，以達到極佳的穩定性與實務的適用性。本研究發現供應商的資訊能力與企業採用電子化採購交易有正向的影響，交易成本的變數的交易頻率與電子採購交易有顯著影響關係。此外本研究亦發現夥伴關係的信任與承諾也與電子化採購交易有正向關係。本研究之結果可供後續相關研究與業者在採用電子化採購時能考量影響企業採用之因素。

關鍵詞：電子化採購、交易成本、資訊能力、夥伴關係

目錄

中文摘要	iii
英文摘要	iv
誌謝辭	v
內容目錄	vi
表目錄	viii
圖目錄	ix
第一章 緒論	1
第一節 研究背景與動機	1
第二節 研究目的	3
第三節 研究對象與範圍	3
第四節 研究流程	3
第二章 文獻探討	5
第一節 電子化採購	5
第二節 供應商的資訊能力	16
第三節 交易成本	20
第四節 夥伴關係	27
第五節 信任	30
第六節 承諾	32
第三章 研究方法	35
第一節 研究架構	35
第二節 研究假設	36
第三節 研究工作與問卷調查	41
第四節 資料來源與分析方法	45
第四章 實證分析結果	50
第一節 樣本結構分析	50
第二節 信度分析	53
第三節 相關分析	54
第四節 測量模式分析	55
第五節 整體結構模式分析	57
第六節 實證結果與討論	59
第五章 結論與建議	62
第一節 結論	62
第二節 管理意涵	63

第三節 後續研究建議與研究限制	66
參考文獻	68
附錄A 研究問卷	86

表目錄

表 2-1 電子化採購之定義彙整表	6
表 2-2 資訊科技定義彙總表	17
表 2-3 交?成本定義彙總表	22
表 2-4 夥伴關係定義彙總表	27
表 3-1 電子化採購問項	29
表 3-2 供應商資訊科技能力問項	42
表 3-3 交易頻率問項	43
表 3-4 夥伴關係問項	44
表 3-5 整體模式適配度指標總表	47
表 4-1 受訪者基本資料樣本分佈情形	51
表 4-2 衡量題項平均數與標準差分析	52
表 4-3 本研究各構念信度分析	53
表 4-4 各研究構念之相關矩陣	55
表 4-5 各構面之驗證性因素分析	56
表 4-6 研究模式的配適度分析	59
表 4-7 結構模式之各變項路徑關係彙整表	59

圖目錄

圖 1-1 研究流程圖	4
圖 3-1 本研究架構圖	42
圖 4-1 SEM路徑關係驗證結果	60

參考文獻

一、中文部份方至民(2002), 企業競爭優勢, 三重市:前程企業管理公司。王存國, 戴基峰(2001), 組織特性與資訊科技對組織績效之影響, 資訊管理學報, 7(2), 1-26。王榮賢(2003), 資產特用性及依賴程?對供應商加入供應鏈管?系統專案影響之研究, 私立中原大學資訊管?研究所未出版之碩士?文。吳明隆, 涂金堂(2006), SPSS與統計應用分析, 886, 台北:五南圖書出版股份有限公司。吳思華(2000), 策略九說:策略思考的本質, 台北:城邦文化。呂蓮芬(2003), 影響供應商配合中心廠導入電子採購之因素研究, 國?政治大學企業管?研究所未出版之碩士?文。林福仁, 林煌基, (2003), 資訊分享以強化時基競爭?:台灣半導體產業供應鏈資訊整合之研究, 中山管理評?, 4(6), 533-574。洪慈?(2002), 企業進入電子市集影響因素之研究 - 以交?成本觀點探討, 私立元智大學資訊管?研究所未出版之碩士?文。徐仁輝(1999), 當代預算改革的制度性研究, 台北:智勝文化。陳建元(2006), 土地使用制度的選擇與產權結構關係之研究 - 制度經濟的觀點與應用, 海峽兩岸土地學術研討會論文集(pp. 358-367), 台北:政治大學地政學系。陳美?(2002), 高階主管支持、動機、能?與市場導向對績效影響之實證研究 - 以企業間電子商務為?, 私?靜宜大學企業管?所未出版之碩士?文。陳盟元(1997), 買賣雙方關係影響因素之研究 - 以廣告業為例, 國立中山大學企業管理研究所未出版之碩士論文。陳鴻基, 嚴紀中(2004), 管理資訊系統理論、科技、實務與應用, 2版, 台北:雙葉書廊有限公司。黃興進, 洪銘建(2003), 國內藥廠採用電子採購交?模式之實證研究, 資管評?, 12(6), 49-78。楊銘賢, 張銀益(2002), 企業電子化規劃與管理之探討, 資訊管理學報, 9, 57-74。

二、英文部份Ageshin, E. A. (2001). E-Procurement at Work: A Case Study. *roduction and Inventory Management Journal*, 42(1), 48-53. Alexander, E. R. (2001). A transaction-cost theory of land use planning and development control. *Town and Planning Review*, 72(1), 45-75. Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63(1), 1-18. Andaleeb, S. S. (1996). An Experimental Investigation of Satisfaction and Commitment in Marketing Channels: The Role of Trust and Dependence. *Journal of Retailing*, 72(1), 77-93. Anderson, E., & Weitz, B. A. (1992). The Use of Pledges to Build and Sustain Commitment in Distribution Channels. *Journal of Marketing Research*, 29(February), 18-34. Anderson, J. C., & Narus, J. A. (1990). A Model of the Distributor Firm and Manufacturer Firm Working Partnerships. *Journal of Marketing*, 54, 28-36. Anderson, E., & Weitz, B. A. (1989). Determinants of Continuity in Conventional Industrial Channel Dyads. *Marketing Science*, 8(4), 310-323. Anderson, E., Lodish, L. M., & Weitz, B. A. (1987). Resource allocation behavior in conventional channels. *Journal of Marketing Research*, 24, 85-97. Austin, H. (1988). Assessing the performance of information technology. *Health Management Technology*, 9(11), 56-58. Avlonitis, G. J., & Karayanni, A. J. (2000). The impact of internet use on B to B marketing. *Industrial*

Marketing Management, 29(3), 441-459.

Bakos, J. Y., & Treacy, M. E. (1986). Information Technology and Corporate Strategy: A Research Perspective. *MIS Quarterly*, 5(2), 106-119.

Barney, J. B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120.

Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness-of-fit in the analysis of covariance structures. *Psychological Bulletin*, 88, 588-606.

Bharadwaj, A. S. (2000). A resource-based perspective on information technology capability and firm performance: An empirical investigation. *MIS Quarterly*, 24(1), 169-196.

Blau, P. M. (1964). *Exchange and Power in Social Life*. New York: John Wiley and Sons.

Bowersox, D. J., & Stank, T. P. (2000). Ten Mega-Trends The Will Revolutionize Supply Chain Logistics. *Journal of Business Logistics*, 21(2), 1-16.

Boynton, A. C., & Zmud, R. W. (1987). IT Planning in 1990 ' s: Direction for Practice and Research. *MIS Quarterly*, 59-71.

Buitelaar, E. (2004). A Transaction-cost Analysis of the Land Development Process. *Urban Studies*, 41(13), 1539-2553.

Burgess, R. (1998). Avoiding Supply Chain Management Failure: Lessons from Business Process Re-engineering. *International Journal of Logistics Management*, 9(1), 15-23.

Byrd, T. A., & Davidson, N. W. (2003). Examining possible antecedents of IT impact on the supply chain and its effect on firm performance. *Information and Management*, 41, 243-255.

Cavusgil, T. S., Deligonul, S., & Zhang, C. (2004). Curbing foreign distributor opportunism: An examination of trust, contracts and the legal environment in international channel relationships. *Journal of International Marketing*, 12(2), 7-27.

Centola, C. (2004). Collaborative commerce for non-technical industries: is it worth the investment. *International Journal of Information Management*, 24, 433-4.

Chau, P. Y. K., & Hu, P. J. H. (2002). Investigating Healthcare Professionals ' Decisions to Accept Telemedicine echnology: An Empirical Test of Competing Theories. *Information and Management*, 39(4), 297-311.

Chang, H. H. (2006). Technical and management perceptions of enterprise information Systems importance, implementation, and benefits. *Information Systems Journal*, 16(3), 263-292.

Childers, T. L., & Ruekert, R. W. (1986). Towards a model of cooperative sentiments and their antecedents in channel distribution. Working paper, School of Management, University of Minnesota.

Choi, T. Y., & Hartley, J. L. (1996). An exploration of supplier selection practice across the supply chain. *Journal of Operations Management*, 14, 333-343.

Chopra, S., & Meindl, P. (2001). *Supply Chain Management: Strategy, Planning, and Oper-ation*. New Jersey: Upper Saddle River, Prentice-Hall.

Chu, S. Y., & Fang, W. C. (2006). Exploring the relationships of trust and commitment in supply chain management. *Journal of American Academy of Business*, 9(1), 24-228.

Coase, R. H. (1937). The Nature of the Firm. *Economica, Journal of Law and Economics*, 4, 386-405.

Coase, R. H. (1960). The Problem of Social Cost. *Journal of Law and Economics*, 3, 1-44.

Dahlman, C. J. (1979). The Problem of externality. *Journal of Law and Economics*, 22(1), 141-162.

Doney, P. M., & Cannon, J. P. (1997). An Examination of the Nature of Trust in Buyer-Seller Relationships. *Journal of Marketing*, 61, 35-51.

Dorsch, M. J., Swanson, S. R., & Kelley, S. W. (1998). The role of relationship quality in the stratification of vendors as perceived by customers. *Journal of the Academy of Marketing Science*, 26(2), 128-142.

Dwyer, F. R., & Oh, S. (1987). Output sector munificence effects on the internal political economy of marketing channels. *Journal of Marketing Research*, 24(4), 347-358.

Dwyer, F. R., Schurr, P. H., & Oh, S. (1987). Developing Buyer-Seller Relationships. *Journal of Marketing*, 51, 1-27.

Earl, M. J. (1989). *Management Strategies for Information Technology*. New Jersey: Prentice Hall.

Ellram, L. M. (1995). Partnering PitFalls in Logistics Partnerships, nternational. *Journal of Physical Distribution and Logistics Management*, 31(3), 36-44.

Feinberg, R., & Kadam, R. (2002). E-CRM web service attributes as determinants of customer satisfaction with retail web sites. *International Journa of Service Industry anagement*, 13(5), 432-451.

Ganesan, S. (1994). Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing*, 58(2), 1-19.

Garbarino, E., & Johnson, M. (1999). The different roles of satisfaction, trust and commitment in consumer relationships. *Journal of Marketing*, 63(2), 70-87.

Geyskens, I., Steenkamp, J-B. E. M., Scheer, L. K., & Kumar, N. (1996). The effects of trust and interdependence on relationship commitment: A trans-Atlantic study. *International Journal of Research in Marketing*, 13(4), 303-347.

Gilliland, D. I., & Bello, D. C. (2002). Two side to attitudinal commitment: The effect of calculative and loyalty ommitment on enforcement mechanisms in distribution channels. *Journal of the Academy of Marketing Science*, 30(1), 24-43.

Greenstein, M., & Vasarhelyi, M. A. (2002). *Electronic Commerce: Security, Risk Management, Control*. New York: McGraw-Hill.

Gounaris, S. P. (2005). Trust and commitment influences on customer retention: Insights from business-to-business services. *Journal of Business Research*, 58(2), 126-140.

Grewal, R., & Dharwadkar, R. (2002). The Role of Institutional Environemnt inMarketing Channels. *Journal of Marketing*, 66(July), 82-97.

Gulati, R. (1995). Social structure and alliance formation patterns: A longitudinal analysis. *Administrative Science Quarterly*, 40, 619-652.

Handfield, R. B., & Nichols, E. L. (1999). *Introduction to Supply Chain*. New Jersey: Prentice Hall.

Henderson, J. C., & Venkatraman, N. (1994). *Strategic Alignment: A Model for Organizational Transformation via Information Technology*, Information Technology and the Corporation of the 1990s. New York: Oxford University ress.

Hitech, D. (2002). *From Procurement to E-procurement and E-sourcing*. Hitech Dimensions Publication.

Jap, S. D. (2001). Pie sharing in complex collaboration contexts. *Journal of Marketing Research*, 38(1), 86-99.

Jaros, S. J., Jermier, J. M., Koebler, J. W., & Sincich, T. (1993). Effects of continuance, affective, and moral commitment on the withdrawal process: An evaluation of eight structural equation models. *Academy of Management Journal*, 36(5), 951-995.

Joo, Y. B., & Kim, Y. G. (2004). Determinants of Corporate Adoption of e-Marketplace: An Innovation Theory Perspective. *Journal of Purchasing and Supply Management*, 10, 89-101.

Kanter, R. M. (1994). Collaborative Advantage. *Harvard Business Review*, 72(4), 96-108.

Kehoe, D., & Boughton, N. (2001). Internet Based Supply Chain Management: A Classification of Approaches to Manufacturing Planning and Control. *International Journal of Operations and Production Management*, 21(4), 516-525.

Kent, J., & Jr, L. (1996). Leverage2: interfunctional co-ordination between logistics and ifor-mation technology. *International Journal of Physical Distribution and Logistics Management*, 26(8), 63-78.

Kim, K., & Frazier, G. L. (1997). On distributor commitment in industrial channels of distribution: A multicomponent approach. *Psychology and Marketing*, 14(8), 847-877.

King, R. C., Sen, R., & Xia, M. (2004). Impact of Web-based e-Commerce on channel strategy in retailing. *International Journal of Electronic Commerce*, 8(3), 103-130.

King, W. R. (1995). The payoff from is strategic planning. *Information Systems Management*, 2(3),

66-68. Konovsky, M. A., & Cropanzano, R. (1991). Perceived fairness of employee drug testing as a predictor of employee attitudes and job performance. *Journal of Applied Psychology*, 76(5), 698-707.

Kumar, N., Hibbard, J. D., & Stern, L. W. (1994). The nature and consequences of marketing channel intermediary commitment. *Marketing Science Institute Working Paper*, 7(3), 1-33.

Kumar, N., Scheer, L. K., & Steenkamp, J.-B. E. M. (1995). The effects of perceived interdependence on dealer attitudes. *Journal of Marketing Research*, 32(3), 348-356.

Lau, R. S. M. (2002). Competitive factors and their relative importance in the US electronics and computer industries. *International Journal of Operations and Production Management*, 22(1), 125-135.

Lai, L. W. (1994). The economics of land-use zoning, a literature review and analysis of the work of Coase. *Town Planning Review*, 65, 77-98.

Lewis, J. D. (1990). *Partnerships For Profit-Structuring And Managing Strategic Alliance*. New York: The Free Press.

Lambert, D. W., Emmelhainz, M. A., & Gardner, J. T. (1996). Developing and Implementing Supply Chain Partnerships. *The International Journal of Logistics*, 7(2), 1-18.

Lambert, D. M., Emmelhainz, M. A., & Gardner, J. T. (1999). Building Successful Logistics Partnerships. *Journal of Business Logistics*, 20(1), 165-181.

Lee, J., & Kim, Y. (1999). Effect of Partnership Quality on IS Outsourcing Success: Conceptual Framework and Empirical Validation. *Journal of Management Information Systems*, 15(4), 29-61.

McFarlan, F. W. (1984). Information Technology Changes the Way You Competes. *Harvard Business Review*, 59(5), 98-103.

Meyer, J. P., Allen, N. J., & Gellatly, I. R. (1990). Affective and continuance commitment to the organization: Evaluation of measures and analysis of concurrent and time-lagged relations. *Journal of Applied Psychology*, 75(6), 710-720.

Mohr, J., & Spekman, R. (1994). Characteristics of Partnership Success: Partnerships Attributes, Communication Behavior, and Conflict Resolution Techniques. *Strategic Management Journal*, 15, 135-152.

Moorman, C., Deshpande, R., & Zaltman, G. (1993). Factors affecting trust in market research relationships. *Journal of Marketing*, 57(1), 81-101.

Moorman, C., Gerald, Z., & Deshpande, R. (1992). Relationships between Providers and Users of Market Research: The Dynamics of Trust within and between Organizations. *Journal of Marketing Research*, 29, 314-328.

Morgan, R. M., & Hunt, S. D. (1994). The Commitment-trust Theory of Relationship Marketing. *Journal of Marketing*, 58, 20-38.

Morgan, R. M., & Shelby, D. H. (1994). The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing*, 58(4), 20-38.

Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.

Parsons, G. L. (1983). Information technology: A new competitive weapon. *Sloan Management Review*, 25(1), 3-14.

Porter, M. E., & Millar, V. E. (1985). How Information Gives You Competitive Advantage. *Harvard Business Review*, 63(4), 149-160.

Rackham, L. F., & Richard, R. (1995). *Getting Partnering Right: How Market Leaders Are Creating Long-term Competitive Advantage*. New Jersey: McGraw-Hill Int'l Enterprises.

Reinartz, W., Krafft, M., & Hoyer, W. D. (2004). The CRM process: Its measurement and impact on performance. *Journal of Marketing Research*, 41(3), 293-305.

Rempel, J. K., Holmes, J. G., & Zanna, M. P. (1985). Trust in close relationships. *Journal of Personality and Social Psychology*, 49(1), 95-112.

Ross, A. (2002). A multi-dimensional empirical exploration of technology investment, coordination and firm performance. *International of Physical Distribution & Logistics Management*, 37(7), 591-609.

Ruiz-Mrcader, J., Merono-Cerdan, L. A., & Sabater-Sanchez, R. (2006). Information echnology and learning: Their relationship and impact on organizational performance in small businesses. *International Journal of Information Management*, 26(1), 16-29.

Ruyter, K. D., Moorman, L., & Lemmink, J. (2001). Antecedents of commitment and trust in customer-supplier relationships in high technology markets. *Industrial Marketing Management*, 30(3), 271-286.

Sakaguchi, T., & Dibrell, C. C. (1998). Measurement of the intensity of global information technology usage: Quantitating the value of a firm ' s information technology. *Industrial Management and Data Systems*, 98(8), 380-394.

Santhanam, R., & Hartono, E. (2003). Issues in linking information Technology capability to firm performance. *MIS Quarterly*, 27(1), 125-153.

Schoenbachler, D. D., & Gordon, G. L. (2002). Multi-channel shopping: understanding what drives channel choice. *Journal of Consumer Marketing*, 19(1), 42-53.

Selnes, F., & Sallis, J. (2003). Promoting relationship learning. *Journal of Marketing*, 67(3), 80-95.

Sohal, A. S., Moss, S., & Ng, L. (2001). Comparing IT success in Manufacturing and service industries. *International Journal of Operations and Production Management*, 21(1/2), 30-45.

Stenger, A. J., Dunn, S. C., & Young, R. R. (1993). Commercially available software for integrated logistics management. *International Journal of Logistics Management*, 4(2), 64-74.

Subramaniam, C., & Shaw, M. J. (2002). A Study of the Value and Impact of B2B E-Commerce: The Case of Web-Based Procurement. *International Journal of Electronic Commerce*, 6(4), 19-40.

Tanriverdi, H. (2006). Performance effects of information technology synergies in multi-business firms. *MIS Quarterly*, 30(1), 57-77.

Teas, R. K., & Sibley, S. D. (1980). An examination of the moderating effect of channel member firm size on perceptions of preferred channel linkages. *Acad Mark*, 277-293.

Turban, E., Mclean, E., & Wetherbe, J. (2006). *Information Technology for Management: Transforming Organizations in the Digital Economy*. New York: John Wiley and Sons.

Turban, E., Mclean, E., & Wetherbe, J. (2001). *Information Technology for Management: Making Connections for Strategic Advantage* (2nd ed.). New York: John Wiley and Sons.

V?quez Casielles, R., Su?rez ?lvarez, L., & D?az Mart?n, A. M. (2005). Trust as a key factor in successful relationships between consumers and retail service providers. *The Service Industries Journal*, 25(1), 83-101.

Venkatraman, D. (1994). Determinants of Electronic Integration in the Insurance Industry: An Empirical Test. *Management Science*, 40(5), 549-566.

Wang, S., & Cheung, W. (2004). E-Business Adopting by Travel Agencies: Prime Candidates for Mobile e-Business. *International Journal of Electronic Commerce*, Spring, 8(3), 43-63.

Warrington, T. B., Abgrab, N. J., & Caldwell, H. M. (2000). Building trust to develop competitive advantage in E-business relationships. *Competitiveness Review*, 10(2), 160-168.

Williamson, O. E. (1975). *Markets and Hierarchies: Analysis and Antitrust Implication*. New York: The Free Press.

Williamson, O. E. (1981). *The Economics of Organization: The Transaction Cost Approach*. *American Journal of Sociology*, 87(3), 548-577.

Williamson, O. E. (1985). *The Economic Institutions of Capitalism*. New York: Free Press.

Williamson, O. E. (1996). *The Mechanisms of Governance*. New York: The Free Press.

Wu, F. M. V., & Balasubramanian, S. (2003). An Analysis of -Business Adoption and Its Impact on Business Performance. *Journal of the Academy of Marketing Science*, 31(4), 425-447.

Zahaty, D., & Griffin, A. (2004). Customer learning processes, strategy selection, and performance in B2B service firms. *Decision Sciences*, 35(2)169-203