

大量客製化能力、物流能力與產品品質對顧客忠誠度之影響：以臺灣醫療製造A公司為例

謝宏達、陳美玲

E-mail: 9600653@mail.dyu.edu.tw

摘要

根據內政部統計處資料，1951年，台灣65歲以上的人口只占總人口的2.5%，然而2004年已達到9.5%，正式邁入聯合國世界衛生組織所界定的「高齡化社會」，是故未來台灣在醫療產業相對於其他產業將扮演更重要的角色。經濟情勢瞬息萬變，目前處於供給大於需求的時代，每家廠商面對大陸低價產品競爭，企業無不陷入前所未有的窘境，許多新的生產管理思維因應而生，客製化或全面品質管理就是其中重要的議題。近年來，企業的行銷、服務品質、滿意度等觀點進行的研究多強調建立和維持顧客忠誠度顧客代表企業獲利來源，而忠誠顧客更是企業長期獲利的主因。本研究主要針對大量客製化、物流能力與產品品質，研究其對顧客忠誠度的影響，我們同時交叉分析大量客製化、物流能力與產品品質間的相互關係。研究結果顯示大量客製化對顧客忠誠度於國內市場並沒有顯著的影響，國外市場具有顯著的影響，總體樣本並沒有顯著影響。物流能力對於國內外皆沒有顯著影響。不論國內外，產品品質對顧客忠誠度具有顯著的影響。大量客製化、物流能力與產品品質彼此間具有顯著的相關。企業應將產品品質視為首要課題，先求品質穩定與符合顧客需求，進一步提升企業成為個人化商品的供給者，並透過建立顧客忠誠度，使企業穩定獲利。

關鍵詞：大量客製化能力，物流能力，產品品質，顧客忠誠度

目錄

| | | | | | | |
|---|-----|---------------|------|-----------------------|------------|-------|
| 封面內頁 簽名頁 授權書..... | iii | 中文摘要..... | iv | 英文摘要..... | v 誌 | |
| 謝..... | vii | 目錄..... | viii | 圖目錄..... | x 表目錄..... | xii 第 |
| 第一章 緒論 第一節 研究背景與動機..... | 1 | 第二節 研究目的..... | 5 | 第三節 研究流程、論文結構與限制..... | 5 | |
| 第二章 文獻探討 第一節 大量客製化能力..... | 7 | 第二節 物流能力..... | 13 | 第三節 產品品質..... | 13 | |
| 第三章 研究方法 第一節 研究架構..... | 31 | 第二節 研究假設..... | 31 | 第四節 問卷效度檢定..... | 38 | |
| 第四章 資料分析與結果 第一節 一般敘述統計分析..... | 42 | 第二節 因素分析..... | 47 | 第五節 回歸分析..... | 47 | |
| 第五章 結論 第一節 研究結論..... | 57 | 第二節 研究建議..... | 59 | 第六章 參考文獻..... | 61 | |
| 附錄一 問卷..... | 74 | 附錄二 相關分析..... | 74 | 表..... | 78 | |
| 圖目錄 圖1-1 研究流程 5 圖2-1 文獻與研究緣起 30 圖3-1 研究架構 32 表目錄 表2-1 大量客製化的定義彙整表 9 表2-2 大量生產與大量客製化之差異 9 表2-3 各學者對物流能力之構面 19 表2-4 知覺品質之定義 23 表3-1 大量客製化能力之問項 35 表3-2 物流能力之問項 36 表3-3 產品品質之問項 37 表3-4 顧客忠誠度之問項 38 表4-1 填答者身份之基本統計分析 42 表4-2 分店數之基本統計分析 43 表4-3 店家坪數之基本統計分析 43 表4-4 成立時間之基本敘述統計分析 44 表4-5 與A公司合作時間之基本統計分析 44 表4-6 大量客製化能力之基本統計分析 45 表4-7 物流能力之基本統計分析 45 表4-8 產品品質之基本統計分析 46 表4-9 顧客忠誠度之基本統計分析 46 表4-10 大量客製化能力之因素分析 47 表4-11 物流能力之因素分析 48 表4-12 產品品質之因素分析 49 表4-13 顧客忠誠度之因素分析 49 表4-14 ?邏輯分析 50 表4-15 國外代理商?邏輯分析 51 表4-16 國內經銷商?邏輯分析 52 表4-17 國內外代理商、經銷商分析比較表 52 表4-18 相關分析 53 表4-19 國內經銷商相關分析 54 表4-20 國外代理商相關分析 55 表4-21 研究假設檢定結果一覽表 55 | | | | | | |

參考文獻

- 一、中文部分 1.王啟彰，2004，彈性製造能力、物流能力與大量客製化及顧客價值關係之研究-國內資訊電子業之實證，東華大學碩士論文。 2.王國榮，2004，線上遊戲品質與公平性對顧客滿意度及忠誠度，東吳大學碩士論文。 3.尤奕清，2005，服務品質與信任對顧客忠誠度的影響-以奇摩拍賣網站為例，大同大學碩士論文。 4.李賢哲，2004，服務品質與信任對顧客忠誠度的影響-以奇摩拍賣網站為例。大同大學碩士論文。 5.李永年，1998，商品品質與服務品質對顧客滿意度及忠誠度之影響-以加油站為例，國立政治大學碩士論文。 6.林羿君，2005，資訊系統整合能力、物流能力、夥伴關係緊密度對供應鏈管理績效、競爭優勢及財務績效影響之分析-以台灣高科技製造業為例，國立東華大學碩士論文。 7.林羿廷，2005，我國金融控股公司成立後顧客價值、滿意度、顧客忠誠度與顧客獲利力關連性之研究-以銀行信用卡部門為例。大業大學碩士論文。 8.林偉修，2003，產品品質、服務品質與顧客購後行為關係之研究:以辦公家具個案公司為例，國立臺灣大學碩士論文。 9.林進財，1999，『資料倉儲建構之管理課題:以電信業為例』，大葉大學事業經營研究所

碩士論文。10.林彩梅，1992，多國籍企業，五南圖書公司。11.周文賢。民國91年6月。多變量統計分析。智勝文化事業。初版。12.吳雅雯，2004，汽車貨運業之市場導向與績效之研究 -以物流能力為中介變數，國立臺北科技大學碩士論文。13.吳萬益、林清河。民國89年12月。企業研究方法。華泰文化事業。初版。14.吳思華，1996。策略九說。台北:麥田出版社。15.吳美勳，1998，『組織記憶與學習機制關係之研究』，政治大學企研所碩士論文。16.汪昭芬，2000，『組織學習、知識創造，知識蘊蓄與創新績效之關聯性研究:科技製造業、一般製造業及服務業之實證』，成功大學企業管理學系碩士論文。17.阿保榮司，1990。物流戰略的展開。白桃書房。21-22.18.柯宜君，2000，消費者認知之產品品質、服務品質及價格對滿意度及忠誠度之影響-於三種有形性比重不同服務業之比較，國立政治大學碩士論文。19.姚嘉勳，2005，產品涉入對知覺產品品質及購買意願之干擾效應--國際知名數位相機為例，大葉大學碩士論文。20.莊舜德，2000，落實供應鏈管理對企業製造目標、物流能力以及經營績效關係之研究，國立成功大學碩士論文。21.張政獻，2002，大量客製化的生產規劃與管理，國立台灣科技大學碩士論文。22.陳順宇，2004。多變量分析(三版)。台北市:華泰書局。23.陳祺斌，2003，消費者之產品品質認知對顧客滿意度及品牌忠誠度之影響 以台北市隱形眼鏡藥水市場為例，大同大學碩士論文24.陳元，2002，大量客製應用在跨國電腦週邊企業的個案研究，台灣科技大學碩士論文。25.陳俊穎，2002。設計生產(DTO)經營模式之大量客製—以NIKE為例。國立台灣科技大學工業管理所碩士論文。26.陳添枝、顧瑩華，1995，台灣中小企業海外投資的特徵，經濟前瞻，中華經濟研究院。27.葉焜煌，2005，以時間基礎的製造與大量客製化做法對顧客價值的影響 以中小企業為例。大同大學碩士論文。28.曹為實，1988，國外買主對我國產品品質評價與購買意願之研究 - 以十二項產品為例，台灣大學碩士論文。29.盧建良，1994，產品品質、成本、價格對企業利潤的影響，國立成功大學碩士論文。30.謝明祥，2000，大量客製化之理論與實務作法，台灣科技大學碩士論文。31.謝國龍，1998，物流交貨彈性能力的決定因子與事業績效關係之研究，銘傳大學碩士論文。32.葉宴伶，2004，消費者購買行為對顧客滿意度與顧客忠誠度之關連性研究-以冷凍調理食品產業為例，中原大學碩士論文。33.黃俊英，2000。多變量分析(七版)。台北:中國經濟企業研究所。34.廖森貴，1998。物流策略環境不確定與組織績效關係之研究 - 資訊電子業的實證研究。國立台灣大學商學研究所博士論文。35.劉常勇，1997，『技術資源管理能力對新產品開發績效影響之研究』，中華民國科技管理研討會論文集，pp.83-89，高雄:中山大學管理學院。36.蘇雄義，2000，台灣資訊製造業和物流業之協同整合研究 以T公司為例，大同大學碩士論文。37.莫懷恩，2000，RFID的技術、發展、導入與物流的管理應用，國立中央大學碩士論文。二、英文部分 1.Adams, M. E., Day, G. S. & Dougherty, D. 1998. Enhancing New Product Development Performance: An Organizational Learning Perspective? Journal of Production Innovation Management, Vol. 15, pp. 403-422. 2.Aaker, D. A. (1996), Strategic market management, 2nd ed., New York: John Wiley. 3.Bagozzi, R. P. (1980). Causal Models in Marketing. New York: Wiley. Bagozzi, R. P. and Yi, Y. (1988). On the Evaluation of Structural Equation Models. Academy of Marketing Science, 16, 76-94. 4.Berman, B. (2002). Should your firm adopt a Mass Customization strategy. Business Horizon, July-August, 51-60. 5.Bovet, D., Martha, J. H., and Kramer K. (2000). Value Nets: Breaking the SupplyChain to Unlock Hidden Profits. New York: John Wiley & Sons Inc. 6.Boyton, A. C., Victor, B., and Pine, B. J. (1993). New Competitive Strategies: Challenges to Organizations and Information Technology. IBM Systems 7.Browne, J., Dubois, d., Rathmill, K., Sethi, S. P., and Stecke, K. E. (1984). Classification of Flexible Manufacturing System. The FMS Magazine, 2 (2), 8.Butz, H. E. Jr., and Goodstein L. D. (1996). Measuring Customer Value: Gaining the Strategic Advantage. Organizational Dynamics, Winter, 63-77. 9.Baker, W. E. & Sinkula, J. M. 1999. The Synergistic Effect of Market Orientation and Learning Orientation on Organizational Performance? Journal of the Academy of Marketing Science, 27 (4), pp. 411-427. 10.Badaracco, J. 1991. The Knowledge Link: How Firms Compete through Strategic Alliances, Boston, Mass: Harvard Business School. 11.Betz, F. 1993. Among Technology Competing Through New Ventures? Innovation, and Corporate Research, Prentice Hall. 12.Bierly, P. & Chakrabarti, A. 1996. Strategic Knowledge Strategies in the US Pharmaceutical Industry? Strategic Management Journal 17 (Winter), pp. 123-135. 13.Brown, J. S. & Duguid, P. 1998. Organizing Knowledge? California Management Review, 40 (3), pp. 90-111. 14.Blumentritt, R. & Johnston, R. 1999. Towards a Strategy for Knowledge Management? Technology Analysis & Strategic Management, 11 (3), pp. 287-301. 15.Brucks, M. and Zeithaml (1991). The Effects of Product Class Knowledge on Information Search Behavior, Journal of Consumer Research, 12, 1-16. 16.Buzacott, J. A. (1982). The Fundamental Principles of Flexibility in Manufacturing Systems. Proceedings of the 1st International Congress on Flexible Manufacturing Systems, Brighton, England. 13-22. 17.Chen, I. J., Calantone, R. J., and Chung, C. H. (1992). The Marketing Manufacturing Interface and Manufacturing Flexibility. Omega, 431-443. 18.Coleman, D. (2000). Groupware. Upper Saddle River, New Jersey: Prentice Hall. 19.Campbell, J. P. 1997. Management by Enlightened Self-interest: Technique Versus Kindness? Health Care Supervisor, 16 (2), pp. 48-57. 20.Campbell, D. R. & Fiske, D. W. 1959. Convergent and Discriminant Validation by Muller-Matzl-Matrix, Psychological Bulletin, 56, pp. 81-105. 21.Cohen, D. 1998. Toward a Knowledge Context: Report on the First Annual UC Berkeley Forum on Knowledge and the Firm? California Management Review, pp. 40-106. 22.Crosby, D. J. and P. C. Riesz (1979), "Prices and Price/Quality Relationships: A Longitudinal Analysis," Journal of Marketing, 52 (Jan.), pp. 36-51. 23.Cohen, W. M. & Leventhal, D. A. 1990. Absorptive Capacity: A New Perspective on Learning and Innovation? Administrative Science Quarterly, 35 (1), pp. 128-132. 24.Cooper, R. G. & Kleinschmidt, E. J. 1985. The Impact of Export Strategy on Export Sales Performance? Journal of International Business Studies, 16 (Spring), pp. 37-55. 25.Copacino, C. S., Guzman, M. R. T. D., & Carlo, G. (1997). "Mass Customization: How Logistics Makes It Happen," Logistics Management and Distribution Report 37, no. 4 (1998): 49-52. 26.Crosby, James H. and B. Joseph H. Pine. "The Four Faces of Mass Customization," Harvard Business Review 75, no. 1 (1979): 91-101. 27.Charles W. L. Hill, (2001), "International Business", McGraw-Hill. 28.Daugherty, P. J., and Pittman P. H. (1995). Utilization of Time-based Strategies. International Journal of Operations and Production Management, 15 (2), 54-60. 29.Daugherty, P. J., Stank, T. P., and Ellinger, A. E. (1998). Leveraging Logistics Distribution Capabilities: The Effect of Logistics Service on Market Share. Journal of Business Logistics, 19 (2), 35-51. 30.Davis, S.

(1987) . From future perfect: Mass Customization. Planning Review, 17 (2) , 16-21. 31.Davenport, T. H. 1997, An Principles of Knowledge Management and Four Case Studies? Knowledge andProcess Management, 4 (3) , pp. 187-208. 32.David, F. R. 1998. Strategic Management, 6th edition, NJ: Prentice Hall. 33.Dmcker, P. F. 1969. The Age of Discontinuity: Guidelines to Our Changing Society, New York: Harper & Row. 34.Ding, L., Velicer, W., and Harlow, L. (1995) . Effect of Estimation Methods,Number of Indicators per Factor and Improper Solutions on Structural Equation Modeling Fit Indices. Structural Equation Modeling, vol. 2, 119-143. 35.Fawcet, S. E., Stanley, L. L., and Smith, S. R. (1997) . Developing a logistics capability to improve the performance of international operations. Journal of business logistics, 18 (2) , 107-121. 36.Fay, C. (1994) " Royalties from Loyalties, " Journal of Business Strategy 15, March/April, 47-51. 37.Frederick, N. Loyalty: Customer Relationship Management in the New Era of Internet Marketing (London: McGraw-Hill, 2000) . 38.Fawcett, S. E., and S. R. Smith, " Logistics measurement and performance for United States-Mexican operations under NAFTA, " Transportation Journal, Spring, 1995, pp. 25-34. 39.Fahey, L. & Pmsak, L. 1998, he Eleven Deadliest Sins of Knowledge Management California Management Review, 40 (3) , Spring, pp. 265-276. 40.Gale, B. T., (1994) Managing Customer Value: Creating Quality and Service that Customers Can See, New York: The Free Press. 41.Gerwin, D. (1993) . Manufacturing flexibility: A Strategic Perspective. Management Science, 39 (4) , 395-410. 42.Gooley, T. B. (1998) . Mass Customization: How logistics makes it happen. Logistics Management and Distribution Report, April, 49-54. 43.Garvin, D. A. (1984) . Product quality: An important strategic weapon. Business Week, March-April, 40-43. 44.Gates, B. 1999. Business at the Speed of Thought: Succeeding in the Digital Economy, Warner Books 45.Glazer, R. 1996. easuring the Knower: Towards a Theory of Knowledge Equity? California Management Review, 40 (3) , pp. 175-194. 46.Grant, R. M. 1997. Knowledge-base view of the firm: Implication for management practice? Long Range Planning, 30 (3) , pp. 450-454. 47.Garrity, E. J., & Sipior, I C. 1994. "Multimedia as a Vehicle for Knowledge Modeling in ~ System/'', Expert System with Application, 7 (3) , pp.397-406. 48.Han, J., and Han D. (2001) . A Framework for Analyzing Customer Value of Internet Business. The Journal of Information Technology Theory and Application, 3 (5) , 25-38. 49.Heskett, C. R. and M. Pfaff, (1994) . Consumer Satisfaction with Food Products and Marketing Services, Economic Research Service, U. S. Department of Agriculture, Agricultural Economic Report No.281. 50.Hair, J. F., , Tathama, R. L. & Black, W. C. 1998. Multivariate Data Analysis with Readings, New York: Macmillan. 51.Hansen, M. T. and B. yon Oetinger 2001. "Introducing T-shaped Managers: Knowledge Management's Next Generation? Harvard Business Review, March, pp. 106-116. 52.Hansen, M. T., Nohria, N., & Tierney, T. 1999. hat Your Strategy for Managing Knowledge?? Harvard Business Review, March-April, pp. 106-116. 53.Hargadon, A. B. 1998. firms as Knowledge Brokers: Lessons in Pursuing Innovation? California Management Review, 40 (3) , pp. 209-227. 54.Hedlund, G. 1994. Model of Knowledge Management and the N-Form Corporation? Strategic Management Journal, 15, pp. 73-90. 55.Hills, C. W. & Jones, G. R. 1998. Strategic Management Theory, 4th edition, Houghton Mifflin Company. 56.Howells, J. 1996. Tacit Knowledge, Innovation and Technology Transfer,[~Technology Analysis & Strategic Management, 8 (2) , pp. 91-106. 57.Inkpen, A. C. 2000. Learning Through Joint Ventures: A Framework of Knowledge Acquisition? Journal of Management Studies, 37 (3) , pp. 1019-1043. 58.Johnson, H. T.& Kaplan, R. S. 1988. Management by Accounting Is Not CFO? Boston, July,4 (7) ,pp. 6-8. 59.Kay, M. J. (1993) . Making Mass Customization Happen: Lessons for Implementation. Planning Review, Jul-Aug, 21 (1) , 14-18. 60.Kotha, S. (1995) . Mass customization: implementing the emering paradigm for competitive advantage. Strategic Management Journal, 16, 21-42. 61.Kotha, S. (1996) . From Mass Production to mass Customization: The Case of the National Industrial Bicycle Company of Japan. European Management Journal, 14 (5) , 442-450. 62.Kotler, P. (1989) . From Mass Marketing to Mass Customization. Planning Review, 17 (5) , 10-13. 63.Kotler, P., and Armstrong, G. (1994) . Principles of Marketing. (6th ed.) . New Jersey: Prentice Hall. 64.Kotler, P. (1999) . Marketing Management. (10th ed.) . New Jersey: Prentice Hall. 65.Kandampully J., " Service Quality to Service Loyalty: A relationship which goes Beyond Customer Service, " Total Quality Management 9, no.6 (1998) : 431-443. 66.Koste, L. L., and Malhotra, M. K. (1999) . A theoretical framework for analyzing the dimensions of manufacturing flexibility. Journal of Operations Management, 18, 75-93. 67.Lynch, D. F., Keller, S. B., and Ozment, J. (2000) . The effect of logistics capabilities and strategy on firm performance. Journal of Business Logistics, 21 (2) , 47-68. 68.Lambert, Stock and Ellram, 1998, " Making mass customization happen, " International Journal OF Physical Distribution & Logistics Management, Bradford, Vol. 24, Iss. 3, pp.11. 69.Leonard-Barton, D. 1995. Y~ellsprings of Knowledge, Harvard. Business School Press, Massachusetts. 70.Li, T. & Calantone, R. J. 1998. he Impact of Market Knowledge Competence on New Product Advantage: Conceptualization and Empirical Exmination? Journal of Marketing, 62 (4) , pp. 13-29. 71.Lincoln, J. R., Ahmadjian, C. L. & Mason, E. 1998. rganizational Learning and Purchase-supply Relationship in Japan: Hitachi, Matsushita, and Toyota Compared? California Management Review, 40 (3) , pp. 241-264. 72.Mandelbaum, M. (1978) . Flexibility in Decision Making: An Exploration and Unification. Unpublished doctoral dissertation, University of Toronto, Canada. 73.Mascarenhas, B. (1981) . Planning for Flexibility. Long Range Planning. 14 (9) , 78-82. 74.Monroe, M. D., Guiltinan, A., (1975) . The Evolution and Future of National Customer Satisfaction Index Models. Journal of Economic Psychology, 22, 217-245. 75.Morgan R. M. & Hunt S. D. (1994) . " The Commitment-Trust Theory of Relationship Marketing " , Journal of Marketing , Vol.58, July, pp.20-38. 76.Machlup, F. 1962. The Production and Distribution of Knowledge in the United States, Princeton, NJ.: Prinection University Press. 77.Madsen, T. K. 1989. uccessful Export Marketing Management: Some Empirical Evidence? International Marketing Review, 6 (4) , pp. 41-57. 78.Mathews, J. A. 1999. From National Innovation Systems to National Systems of Learning: The Case of Technology Diffusion Management in East Asia, DRUID summer conference paper. 79.Morash, E. A., Droke, C. L. M., and Vickery, S. K. (1996) . Strategic Logistics Capabilities for Competitive Advantage and Firm Success. Journal of Business Logistics, 17 (1) , 1-22. 80.Nunnally, J. C. (1978) . Psychometric theory. (2nd ed) . New York: MacGraw- Hill. 81.Olson, E. M., Walker, O. C., & Ruekert, R. W. (1983) .

Organizing for effective new product development: The moderating role of product innovativeness. *Journal of Marketing*, 59 (1) , 48-62. 82.Pine, B. J. (1993) . Mass Customization: The New Frontier in Business Competition. Boston, MA: Harvard Business School Press. 83.Pine, B. J.and Gilmore, J. H. (1997) . The Four Faces of Mass Customization. *Harvard Business Review*, Jan-Feb, 91-101. 84.Peppers, D. and M. Salter, (1993) , Building Relationships One Customer at a time (New York: The One to One Future) . 85. Sullivan, and Anderson, (1990) . The Antecedent and Consequence of Customer Satisfaction for Firm, *Marketing Science*, 12: 25-43. 86.Sethi, A. K., and Sethi, S. P. (1990) . Flexibility in Manufacturing: A Survey. *The International Journal of Flexibility System*, 2 (4) , 289-328. 87.Silveira, G. D., Borenstein, D., and Fogliatto, F. S. (2001) . Mass Customization: Literature review and research direction. *International journal of production economics*, 72, 1-13. 88.Steenkamp, A., L. (1990) . " A Conceptual Model of Service Quality and Its Implications for Future Research, " *Journal of Marketing* 49, no. 4, 41-53. 89.Slack, N. (1983) . Flexibility as a Manufacturing Objective. *International Journal of Operations and Production Management*, 3 (3) , 4-13. 90.Stank, T. P., and Lackey, C. W. (1997) . Enhancing performance through logistical capabilities in Mexican maquiladora firms. *Journal of business logistics*, 18 (1) , 91-111. 91.Suarez, F. F., Cusumano, M. A., and Fine, C. H. (1996) . An Empirical Study of Flexibility in Printed Circuit Board Assembly. *Operation research*, 44 (1) , 223-240. 92.Toffler, A. (1970) . Future Shock. New York: Bantam. 93.Treacy, M., and Wiersema, F. (1993) . Customer intimacy and other value disciplines. *Harvard Business Review*, 41, Jan-Feb, 84-93. 94.Tu, Q., Vonderembse, M. A., and Rang-Nathan, T. S. (2001) . The impact of time-based manufacturing practices on mass customization and value to customer. *Journal of Operation Management*, 19, 201-217. 95.Upton, D. M. (1994) . The Management of Manufacturing Flexibility. *California Management Review*, 36 (2) , 72-89. 96.Upton, D. M. (1995) . Flexibility as Process Mobility: the Management of Plant Capabilities for Quick Response Manufacturing. *Journal of Operations Management*, 12 (3-4) , 205-224. 97.Woodruff, R. B. (1997) . Customer Value: The Next Source for Competitive Advantage. *Journal of the Academy of Marketing Science*, 25 (2) , 139-155. 98.Young A., and Feigin, D (1975) , " What Does Product Quality Really Mean?," *Sloan management Review* 26, (1984) : 25-43. 99.Zhao, M., Droege, C., and Stank, T. (2001) . The Effects of Logistics Capabilities on Firm Performance: Customer-focused versus information-Focused Capabilities. *Journal of Business Logistics*, 22 (2) , 91-107. 100.Zipkin, P. (2001) . The limits of Mass Customization. *MIT Sloan Management Review*, Spring, 81-87. 101.Zhang, Qingyu, Mark A. Vonderembse, and Jeen-su Lim. 2003 " Manufacturing Flexibility: Defining and Analyzing Relationships among Competence, Capability, and Customer Satisfaction, " *Journal of Operations Management* 21, no.2: 173-191. 102.Zhang, D. 2003. oward a Knowledge Context: Repot on the First Annual UC Berkeley Forum on Knowledge and the Firm? *California Management Review*, pp.40-106 103.Zeithaml, V. A. 1988, " Consumer Perceptions of Price, Quality, and Value: A Means-end Model and Synthesis of Evidence, " *Journal of Marketing*, Vol. 52, July, pp. 2-22. 104.Zhang, Q., Vonderembse, M. A., and Lim, Jeen-Su. (2003) . Manufacturing flexibility: defining and analyzing relationships among competence, capability, and customer satisfaction. *Journal of Operations Management*, 21, 173-191. 105.Zeithaml, V. A. and A. Kirmani (1993) , " Advertising, Perceived Quality, and Brand Image, " in Aaker, David A.and Alexander L. Biel, eds.,*Brand Equity & Advertising:dvertising ' s Role in Building Strong Brand*,Iowa City:Lawrence Erlbaum Associates,Inc.,143-161.