

The Effects of Organization ' s Dynamic Capabilities on Innovation Performance – the Viewpoints of Knowledge Sharing and

張宏帆、葉子明

E-mail: 9804886@mail.dyu.edu.tw

ABSTRACT

The improvements in information technology have led to knowledge-based economy, and then to push forward the competition circumstance and the change of business model. Traditional competitive forces are unable to support the analysis of complicated industrial environment, therefore building knowledge integration capability and knowledge transformation capability is required for improving competitive advantage. Dynamic capabilities assist in integrating, establishing organization, and rearranging the capabilities of internal and external knowledge as well as achieving the capabilities for the continuing changed environment, moreover, to control the source of competitive advantage. However, the previous studies showed that dynamic capabilities affected the innovation performance. Since the lack of a model for dynamic capabilities to the effect of innovation performance, this study constructed a research model which was focused on the viewpoint of dynamic capabilities, knowledge sharing, and absorption capabilities. For experiment, question survey and partial least squares analysis for Top 500 manufacturing companies ' R&D section in Taiwan were used to test the research model. The results showed while the growing of unpredictability in competitive environment, improving dynamic capabilities, knowledge sharing and absorption capabilities have positive effects on innovation performance. Moreover, the Low R&D-innovation was emphasized on potential absorption capabilities. And then, High R&D-innovation was emphasized on dynamic capabilities of an organization, the findings indicated that knowledge integration capability and knowledge transformation capability have an improved effects on innovation performance.

Keywords : Dynamic capabilities、 Knowledge sharing、 Absorption capabilities、 Innovation performance

Table of Contents

封面內頁	
簽名頁	
授權書	iii
中文摘要	iv
ABSTRACT	v
致謝	vi
目錄	vii
圖目錄	x
表目錄	xi

1. 緒論	- 1 -
1.1 研究背景與動機	- 1 -
1.2 研究目的	- 4 -
1.3 研究流程	- 4 -
1.4 研究架構	- 7 -
2. 文獻探討	- 8 -
2.1 知識管理	- 8 -
2.1.1 知識管理的定義	- 8 -
2.1.2 知識管理的理論	- 10 -
2.1.3 知識管理的應用	- 12 -
2.1.4 知識管理議題發展	- 15 -
2.2 知識吸收能力	- 17 -
2.3 創新與創新績效	- 18 -
2.4 動態能力	- 28 -
2.5 創新中介市場	- 31 -

2.6 知識吸收能力與動態能力 - 38 -
2.7 動態能力與組織創新績效 - 42 -
3. 研究方法 - 44 -
3.1 研究模式 - 44 -
3.2 問卷設計 - 45 -
3.3 研究對象 - 47 -
3.4 資料分析方法 - 48 -
3.4.1 PLS分析 - 51 -
3.4.2 PLS信效度分析與衡量指標 - 54 -
4. 實證分析 - 56 -
4.1 樣本資料分析 - 56 -
4.2 信、效度分析 - 58 -
4.3 整體研究模式暨假設驗證 - 62 -
4.4 企業研發創新程度模型分析 - 64 -
4.4.1 低度研發創新企業 - 64 -
4.4.2 高度研發創新企業 - 66 -
4.5 研究結果 - 68 -
5. 討論 - 72 -
5.1 研究假設與企業類型的比較 - 72 -
5.2 知識管理與動態能力觀點 - 77 -
5.3 創新績效的鴻溝 - 78 -
5.4 SEM的限制與PLS的應用 - 79 -
6. 結論與建議 - 82 -
6.1 結論 - 82 -
6.2 管理意涵 - 83 -
6.3 研究貢獻 - 85 -
6.3.1 學術性的貢獻 - 85 -
6.3.2 實務性的貢獻 - 86 -
6.4 未來研究建議 - 88 -
參考文獻 - 89 -
附件一 研究問卷 - 104 -

REFERENCES

- 一、中文文獻
- 1.王思峰、黃家齊、鄭俐敏(2002)。團隊知識轉換與知識創造的實驗研究:知識螺旋理論的驗證。管理與系統, 9(1), 29-60。
 - 2.方世杰(2008)。知識管理研究之本質:組織知識的統治。組織與管?, 1(2), 1-35。
 - 3.江志卿、黃興進、嚴紀中(2005)。中小企業採用網路科技之比較:創新擴散通用模式的整合觀點。資訊管理學報, 12(2), 103-139。
 - 4.邱世寬、陳珮謹(2008)。新產品開發之組織間控制機制設計與開發績效關係之實證研究。創新與管理, 5(1), 1-31。
 - 5.李銘尉、蔡錦裕(2007)。創新擴散理論模式之應用 - 以MP3隨身聽產業為例。資訊管理學報, 14(2), 27-48。
 - 6.林明杰、蔣宜哲、黃錦華(2007)。新產品開發加速機制與新產品開發績效指標對專案成功影響之研究。科技管理學刊, 12(4), 101-144。
 - 7.吳宜靜、江成欣、林博文(2008)。創新模式的新典範:開放式創新。產業與管理論壇, 9(3), 6-23。
 - 8.池文海、陳瑞龍、彭明光(2008)。知識管理基礎建設與知識管理能力對組織績效之影響 - 以台灣電力公司為例。電子商務學報, 10(3), 595-624。
 - 9.邱瑞淙、楊佳翰、徐作聖(2008)。創新中介服務平台經營模式研究。台灣行銷學術研討會。台灣:台北。
 - 10.茂能(2006)。SEM適配?指標的潛藏問題:最佳模式難求。測驗統計?刊, 16, 17-30。
 - 11.吳偉文(2007)。運用PLS探討兩岸三地千大公司經營指標之特徵。東亞論壇季刊, 457, 13-23。
 - 12.周斯畏、張又介(2007)。影響知識創造的整合模式:資訊科技創新觀點。資訊管理學報, 14, 87-111。
 - 13.洪懿妍(2003)。創新引擎(工研院:臺灣產業成功的推手)。台北:天下雜誌。
 - 14.范惟翔、張瑞鉉(2007)。電子商務網站經營環境之建構與效果衡?模式研究。管?評?, 26(2), 39-67。
 - 15.陳明惠、張元杰、陳咨明、毛凱立(2007)。網絡型態與研發專案團隊績效:以專案發展階段的觀點。台灣管理學刊, 7(1), 1-24。
 - 16.陳海鳴、李允中(2008)。台灣高科技廠商建立知識管理循環之研究。科技管理學刊, 13(3), 32-59。
 - 17.侯嘉政(2008)。企業動態能力與創業管理之研究。創業管理研究, 3(2), 1-28。
 - 18.雍惟奮、洪世章(2006)。以動態能?觀點探討明基的興起。管理與系統, 13(1), 99-120。
 - 19.曾志文、許晉龍(2008)。以社會資本觀點探討使用者?與部?格?為之研究。資訊社會研究, 15, 209-232。
 - 20.黃家齊、蔡達人(2003)。團隊多元化與知識分享、知識創造及創新績效。台大管理論叢, 13(2), 233-280。
 - 21.黃家齊、許雅婷(2006)。團隊成員人格特質對知識分享及創新績效之影響 - 個人與團隊層次的分析。管理學報, 23(2), 149-170。
 - 22.黃家齊、王思峰(2008)。團隊知識轉換能力組合與知識分享、知識創造及創新績效 - 知識螺旋理論的新觀點驗證。組織與管理, 1(1), 39-72。
 - 23.黃延聰(2007)。策??盟夥伴配適的管?:臺灣廠商之實證研究。管理與系統, 14(2), 147-178。
 - 24.應大中、王存國(2007)。企業資源規劃系統之

導入研究 - 從創新擴散的觀點分析。電子商務學報, 9(2), 205-233。25.鄭仁偉、黎士群(2001)。組織公平、信任與知識分享行為之關係性研究。人力資源管理學報, 1(2), 69-85。26.魏依玲、吳彥寬(2008)。開放式創新下研究機構角色之轉變。產業與管理論壇, 10(3), 8-30。

二、英文文獻

1. Abrahamson, E. & Rosenkopf, L. (1997). Social network effects on the extent of innovation diffusion: A computer simulation. *Organization Science*, 8(3), 289-309.
2. Alavi, M. & Leidner, D.E. (2001). Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly*, 25(1), 107-136.
3. Albino, B., Carbonara, N. & Giannoccaro, I. (2006). Innovation in industrial districts: An agent-based simulation model. *International Journal of Production Economics*, 104, 30-45.
4. Anderson, J. C. & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
5. Bagozzi, R. P., & Yi, Y. (1998). On the evaluation for structural equation models. *Journal of the Academy of Marketing Science*, 16, 74-94.
6. 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), 411-427.
7. Baptista, R. (1999). The diffusion of process innovations: A selective review. *International Journal of The Economics of Business*, 6(1), 107-129.
8. Barczak, G. (1995). New product strategy, structure, process and performance in the telecommunications industry. *Journal of Product Innovation Management*, 2, 224-234.
9. Barney, J. B. & Baysinger, B. (1990). The organization of schumpeterian innovation. *Strategic Management in High Technology Firms*, 19(2), 3-14.
10. Bass, F. M. (1969). A new product growth model for consumers durables. *Management Science*, 15, 215-227.
11. Baumgartner, H. & Homburg, C. (1996). Applications of structural equation modeling in marketing and consumer research: a review. *International Journal of Research in Marketing*, 13, 139-161.
12. Bentler, P. M., & Chou, C. P. (1987). Practical Issues in Structural Modeling. *Sociological Methods and Research*, 16, 78-117.
13. Boar, B. H. (1997). *Strategic Thinking for Information Technology*. John Wiley.
14. Bollen, K.A. (1989). *Structural Equations with Latent Variables*. New York: Wiley.
15. Brown, J. S. & Duguid, P. (2001). Knowledge and organization: A social-practice perspective. *Organization Science*, 12(2), 198-213.
16. Byrne, B. M. (1994). *Structural equation modeling with EQS and EQS/Windows*. Newbury Park, CA: Sage.
17. Carmines, E. & McIver, J. (1981). *Analyzing models with unobserved variables: Analysis of covariance structures*. Beverly Hills, Calif: Sage.
18. Chandran, J. P. (2004). Managing New Industry Creation: Global Knowledge Formation and Entrepreneurship in High Technology, *Academy of Management Review*, 29(2), 303-319.
19. Chatha, K. A., Ajaefobi, J. O., & Weston, R. H. (2007). Enriched multi-process modelling in support of the life cycle engineering of Business Processes. *International Journal of Production Research*, 45(1), 103-141.
20. Chen, H. C. (2006). An Integrated Value-Creation Process for Innovation Intensive Industries. Unpublished doctoral dissertation, Institute of Management of Technology, National Chiao Tung University, Hsichu, Taiwan.
21. Chesbrough, H. W. (2003). *Open Innovation: The New Imperative for Creating and Profiting from Technology*. New York: Harvard Business School Press.
22. Chesbrough, H. W. (2004). Managing Open Innovation. *Research Technology Management*, 47(1), 23-26.
23. Chesbrough, H. W. (2006). *Open Business Models: How to Thrive in the New Innovation Landscape*. New York: Harvard Business School Press.
24. Chesbrough, H. W. (2007). Open Innovation and Strategy. *California Management Review*, 50(1), 57-76.
25. Chin, W. W. & Todd, P. (1995). On the use, usefulness, and ease of use of structural equation modeling in MIS research: a note of caution. *MIS Quarterly*, 19(2), 237-246.
26. Chin, W. W. (1998a). Issues and opinion on structural equation modeling. *Management Information System Quarterly*, 22(1), 52-62.
27. Chin, W. W. (1998b). "The Partial Least Squares Approach to Structural Equation Modeling," in *Modern Methods for Business Research*. G. A. Marcoulides (Ed.), Lawrence Erlbaum Associates Inc., Mahway.
28. Christensen, C.M. (1997). *The innovator's dilemma: When new technologies cause great firms to Fail*. Boston: Harvard Business School Press.
29. Christensen, C. M., Suarez, F. F. & Utterback, J. M. (1998). Strategies for Survival in Fast Changing Industries. *Management Science*, 44(12), S207-S220.
30. Christensen, C. M. & Raynor, M. E. (2003). *The Innovator's Solution: Creating and Sustaining Successful Growth*. Boston: Harvard Business School Press.
31. Christensen, C. M., Kaufman, S. P. & Shih, W. C. (2008). Innovation Killers. *Harvard Business Review*, 86(1), 98-105.
32. Cliff, N. (1983). Some cautions concerning the application of causal modeling methods. *Multivariate Behavioral Research*, 18, 115-126.
33. Cohen, W.N. and Levinthal, D.A. (1990). Absorptive Capability: A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, 35, 1128-1152.
34. Conner, K. M., & Prahalad, C. K. (1996). A resource-based theory of the firm: Knowledge versus opportunism. *Organization Science*, 7(5), 477-501.
35. Cooper, R. B. & Zund, R. W. (1990). Information Technology Implementation Research: a Technology Diffusion Approach. *Management Science*, 26(2), 123-139.
36. Cooper, R. G., & Kleinschmidt, E. J. (1996). Winning business in product development: the critical success factors. *Research-Technology Management*, 39, 18-29.
37. Dechant, K., & Marsick, V. J. (1993). Team learning survey: Leaders guide. King of Prussia. *Organization Design, & Development*.
38. Demarest, M. (1997). *Understanding Knowledge Management*. Long Range Planning, 30(3), 374-384.
39. Drucker, P.F. (1985). *Innovation and Entrepreneurship: Practice and Principles*. London: Heinemann.
40. Drucker, P. F. (1993). *Post-capitalist Society*. New York: Butterworth Heineman.
41. Eisenhardt, M. K. & Martin, A. J. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21, 1105-1121.
42. Felin, T., & Hesterly, W. S. (2007). The knowledge-based view, nested heterogeneity, and new value creation: Philosophical considerations on the locus of knowledge. *Academy of Management Review*, 32(1), 195-218.
43. Frambach, R. T. (1993). An integrated model of organizational adoption and diffusion of innovations. *European Journal of Marketing*, 25(5), 22-41.
44. Fornell, C. & Larcker, D. F. (1981). Evaluating structural equation models with unobservable and measurement errors. *Journal of Marketing Research*, 18, 35-50.
45. Foss, N. J. (2007). The emerging knowledge governance approach: Challenge and characteristics. *Organization*, 14(1), 29-52.
46. Gan, B. P., Liow, L. F., Gupta, A. K., Lendermann, P. Turner, S. J. & Wang, X. (2007). Analysis of a borderless fab using interoperating AutoSched AP models. *International Journal of Production Research*, 45(3), 675-697.
47. Gefen, D., Straub, D.W. & Boudreau, M. (2000). Structural equation modeling and regression: guidelines for research practice. *Communications of the Association for Information Systems*, 4(7), 1-70.
48. Gilbert, M. &

Gordey-Hayes, M. (1996). Understanding The Process of Knowledge Transfer to Achieve Successful Technological Innovation. *Technovation*, 16(6), 301-312.

Gold, A. H., Malhotra, A. & Segars, A. H. (2001). Knowledge Management: An Organization Capabilities Perspective. *Journal of Management Information System*, 18(1), 185-214.

Grandori, A. (2001). Neither hierarchy nor identity: Knowledge governance mechanism and the theory of the firm. *Journal of management and Governance*, 5, 381-399.

Grandori, A., & Kogut, B. (2002). Dialogue on organization and knowledge. *Organization Science*, 13(3), 224-231.

Haenlein, M. & Kaplan, A. M. (2004). A Beginner ' s Guide to Partial Least Squares Analysis. *Understanding statistics*, 3(4), 283-297.

Hair, J. F., Anderson, R. E., Tatham, R. L. & Black, W. C. (1998). *Multive Data Analysis*. New York: Prentic-Hall.

Hamel, G. (2000). *Leading the revolution*. Boston: Harvard Business School Presses.

Hayduk, L.A. (1987). *Structural Equation Modeling with LISREL: Essentials and Advantage*. Baltimore: Johns Hopkins University Press.

Hayes, R., Wheelwright, and Clark (1988). *Dynamic Manufacturing: Creating the Learning Organization*. New York: Free Press.

Helfat, C. E. & Peteraf, M. A. (2003). The Dynamic Resource-Based View: Capability Lifecycles. *Strategic Management Journal*, 24, 997-1010.

Henderson, R. & Cockburn, I. (1994). Measuring competence? Exploiting firm effects in pharmaceutical markets research. *Strategic Management Journal*, 15, 63-84.

Hu, L. & P. M. Bentler (1995). *Structural Equation Modeling: Concepts Issues and Applications*. Thousand. Oaks, CA: Sage.

Huston, L. & Sakkab, N. (2006). Connect and Develop: Inside Procter & Gamble ' s New Model for Innovation. *Harvard Business Review*, 3, 58-67.

Joan, S. & Caroline, E. (2006). *Supply Chain Management: Theory, Practice and Future Challenges*. *International Journal of Operations & Production Management*, 26(7), 754-774.

Johnson, J. L. & Sohi, R. S. (2004). The development of interfirm partnering competence: Platforms for learning, learning activities, and consequence of learning. *Journal of Business Research*, 56, 757-766.

Johnson, W. H. A. & Johnston, D. A. (2004). Organizational knowledge creating processes and the performance of university-industry collaborative R&D projects. *International Journal of Technology Management*, 27, 93-114.

Joreskog, K. G. (1973). A general method for estimating a linear structural equation system. In A. S. Goldberger & O. D. Duncan (Eds.), *Structural equation models in the social sciences*. New York: Academic Press.

Joreskog, K. G. & Sorbom, D. (1996). *LISREL8: User ' s reference guide*. Mooresville: Scientific Software.

Johannessen, J.A., Olsen, B. & Olaisen, J. (1999). Aspects of innovation theory based on knowledge-management. *International Journal of Information Management*, 19(2), 121-139.

Kaplan, D. (2000). *Structural Equation Modeling: Foundations and Extensions*. Thousand Oaks, CA: Sage Publications.

Kim, B. (2003). Managing the transition of technology life cycle. *Technovation*, 23(5), 371-381.

Klink, R. R. & Athaide, G. A. (2006). An Illustration of Potential Sources of Concept-Test Error. *Journal of Product Innovation Management*, 23(4), 359-370.

Koestler, A. (1966). *The Act of Creation*. London: Hutchinson.

Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, 3(3), 383-397.

Kotler, P. & Zaltman, G. (1976). Targeting Prospects for a New Product. *Journal of Advertising Research*, 16(2), 7-20.

Kuan, K. Y. & Chau, P. Y. K. (2001). A Perception-based Model for EDI Adoption in Small Business using a Technology-Organization-Environment Framework. *Information & Management*, 38(8), 507-521.

Kyriakopoulos, K., & de Ruyter, K. (2004). Knowledge stocks and information flows in new product development. *Journal of Management Studies*, 41(8), 1469-1498.

Lee, C. S. (2001). Modeling the business value of information technology. *Information & Management*, 39, 191-210.

Levitt, T. (1965). Exploit the Product Life Cycle. *Harvard Business Review*, 43(6), 81-94.

Lichtenthaler, U. (2008). Integrated Roadmaps for Open Innovation. *Research Technology Management*, 51(3), 45-49, 2008.

Lindkvist, L. (2004). Governing project-based firms: Promoting market-like processes within hierarchies. *Journal of Management and Governance*, 8, 3-25.

Luo, Y. (2000). Dynamic capabilities in international expansion. *Journal of World Business*, 35(4), 355-378.

Mahajan, V., Muller, E., & Bass, F. M. (1990). New product diffusion models in marketings: A review and directions for research. *Journal of Marketing*, 54(1), 1-26.

Mansfield, E. (1961). Technical change and the rate of imitation. *Econometrica*, 29, 741-766.

March, J. & Simon, H. A. (1958). *Organizations*. New York: John Wiley.

Matthyssens, P., Vandenbempt, K., & Berghman, L. (2006). Value innovation in business markets: Breaking the industry recipe. *Industrial Marketing Management*, 35(6), 751-761.

McEvily, S. K., & Chakravarthy, B. (2002). The Persistence of Knowledge-Based Advantage: An Empirical Test for Product Performance and Technological Knowledge. *Strategic Management Journal*, 23, 285-305.

Minkler, A. P. (1993). The problem with dispersed knowledge firms in theory and practice. *Kyklos*, 46, 569-587.

Morre, G. A. (1991). *The product Adoption Curve in Crossing the Chasm. Marketing and Selling Technology Products to Mainstream Customers*. New York: HarperCollins.

Morre, G. A. (1995). *Inside the Tornado*. New York: Harper Business.

Nelson, R. R. & Winter, S. G. (1982). *An Evolutionary Theory of Economic Change*. Harvard University Press, Cambridge, MA.

Nickerson, J. A., & Zenger, T. (2004). A knowledge -based theory of the firm: The problem -solving perspective. *Organization Science*, 15(6), 617-632.

Nonaka, I., (1991). *The Knowledge Creating Company*. *Harvard Business Review*, 11(12), 96-104.

Nonaka, I. (1994). A Dynamic theory of organizational knowledge creation. *Organization Science*, 5(1), 14-37.

Nonaka, I. & Takeuchi, H. (1995). *The knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. New York: Oxford University Press.

Nonaka, I., & Konno, N. (1998). The concept of " Ba " : Building a foundation for knowledge creation. *California Management Review*, 40(3), 40-54.

Nooteboom, B. (2000). Learning by interaction: Absorptive capacity, cognitive distance and governance. *Journal of Management and Governance*, 4, 69-92.

Olson, E. M., Walker, O. C., & Ruekert, R. W. 1995. Organizing for effective new product development: the moderating role of product innovativeness. *Journal of Marketing*, 1, 48-62.

Peteraf M. A. (1993). The Cornerstones of Competitive advantage: a Resource-based View. *Strategic Management Journal*, 14(3), 179-192.

Penrose, E. (1959). *The Theory of the Growth of the Firm*. London: Basil Blackwell.

Pfeffer, J. & Salancik, G. R. (1977). *Organization Design: The Case for a Coalitional Model of Organizations*. *Organizational Dynamics*, 6(2), 15-29.

Pfeffer, J. & Salancik, G. R. (1978). The external control of organizations: A resource dependence perspective. *Harper & Row Publishers*.

Porter M.E. (1980). *Competitive Strategy: Technique for Analyzing Industries and*

Competitors. New York: Free Press.101.Prahalad, C. K. & Hamel, G. (1990). The Core Competence of the corporation. *Harvard Business Review*, 68(3), 79-91.102.Quinn, J. B., Anderson, P., & Finkelstein, S. (1996). Managing professional intellect: Making the most of the best. *Harvard Business Review*, 74(2), 71-80.103.Quinn, J. B. (1999). Strategic Outsourcing: Leveraging Knowledge Capabilities. *Sloan Management Review*, 9-21.104.Raymond, L. P. & Julien, A. (2001). Technological Scanning by Small Canadian Manufacturer. *Journal of Small Business Management*, 39(2), 123-138.105.Rentsch, J. R. & Klimoski, R. J. (2001). Why do great minds ' think alike? Antecedents of team member schema agreement. *Journal of Organizational Behavior*, 22, 107-120.106.Ringle, C. M., Wende, S. & Will, A. (2005). SmartPLS – Version 2.0. Hamburg University, Hamburg.107.Roberts B. (2000). Pick employees ' brains. *HR Magazine*, 45(2), 115-120.108.Rogers, E. M. (1983). *Diffusion of Innovations*. New York: Free Press.109.Ryan, B. & Gross, N. C. (1943). The diffusion of hybrid seed corn in two Iowa communities. *Rural Sociology*, 8, 15-24.110.Senge (1990). *The Fifth Discipline: The Art and Practice of the learning organization*. New York: Doubleday.111.Schumpeter, J. A. (1942). *Capitalism, Socialism, and Democracy*. New York: Harper.112.Sharma, S. (1996). *Applied multivariate technique*. New York: John Wiley & Sons.113.Smith, K. A. and DeGregorio, D. D. (2002). " Bisociation, Discovery, and Entrepreneurial Action, " *Strategic entrepreneurship: Creating an integrated mindset*. Oxford: Blackwell.114.Spender, J. C. (1996). Making Knowledge the Basis of a Dynamic Theory of The Firm. *Strategic Management Journal*, 17, 45-62.115.Swan, J., & Scarbrough, H. (2001). Knowledge management: Concepts and controversies. *Journal of Management Studies*, 38(7), 913-921.116.Szulanski, G. (1996). Exporting Internal Stickiness: Impediments to the Transfer of Best Practice within the Firm. *Strategic Management Journal*, 17, 27-33.117.Teece, D. J. (1976). *The Multinational Corporation and the Resource Cost of International Technology Transfer*, Ballinger, Cambridge, MA.118.Teece, D. J. (1986). Transaction Cost Economics and the Multinational Enterprise. *Journal of Economic Behavior and Organization*, 7, 21-45.119.Teece, D. J. (1988), " Technological Change and the Nature of the Firm, " *Technical Change and Economic Theory*. New York: Pinter Publishers.120.Teece, D. J., Pisano, G. & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7), 509-533.121.Thurstone, L. L. (1927). A law of coparative judgement. *Psychological Review*, 34, 278-286.122.Tomarken, A. J.,& Waller, N. G. (2003). Potential problems with well fitting models. *Journal of Abnormal Psychology*, 112(4), 578-598.123.Tomarken, A. J.,& Waller, N. G. (2005). Structural equation modeling: Strengths, Limitations, and Misconceptions. *The Annual Review of Clinical Psychology*, 1, 31-65.124.Tsoukas, H. & Vladimirov (2001). What is organization knowledge? *Journal of Management Studies*, 38(7), 973-993.125.Turner, K., & Makhija, M. V. (2006). The role of organizational controls in managing knowledge. *Academy of Management Review*, 31(1), 197-217.126.Van den Bosch, F., Volberda, H. & De Boer, M. (1999). Convolution of Firm Absorptive Capacity and Knowledge Environment: Organizational Forms and Combinative Capabilities. *Organization Science*, 10(5), 551-568.127.Veugelers, R. & Cassiman, B. (1999). Make and buy in innovation strategies: evidence from Belgian manufacturing firms. *Research Policy*, 28, 63 – 80.128.Vidal, C. & Goetschalckx, M. (2001). A Global supply chain model with transfer pricing and transportation cost allocation. *European Journal of Operational Research*, 129(1), 134-158, 2001.129.Wan, T. H. (2002). *Evidence-based Health Care Management: Multivariate Modeling Approaches*. Kluwer Academic Publishers.130.Wiig, K. M. (1997). *Knowledge management: Where did it come from and where will it go? Expert Systems with Applications*, 14(5), 67-78.131.Williams, L. J. & Hazer, J. T. (1986). Antecedents and consequences of satisfaction and commitment in turnover models: A reanalysis using latent variable structural equation Methods. *Journal of Applied Psychology*, 71(2), 219-231.132.Wold, H. (1982). System under Indirect Observation Using PLS. *A Second Generation of Multivariate Analysis*, Praeger, New York.133.Zahra, S. A. & George, G.. (2002). Absorptive Capability: a Review, Reconceptualization, and Extension. *Academy of Management Review*, 27(2), 185-203.134.Zahra, S. A. & George, G. (2003). The Net-Enabled Business Innovation Cycle and the Evolution of Dynamic Capabilities. *Information System Research*, 13(2), 147-150.135.Zollo, M. & Winter, S. (2002). Deliberate Learning and the Evolution of Dynamic Capabilities. *Organization Science*, 13, 339-351.