

The Research of the Effective Technological Learning and Transferring on the Night Vision Device - A Case Study on a Mili

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ABSTRACT

Most of the modern wars were launched during the night; since the Gulf War more than a decade ago till the recent battle between the U.S.A. and Afghanistan, one may find that night fighting has become the principle format of war. In view of this, optical night vision equipment has become a necessity in modern war. The technical transfer of weapon equipment for national defense on the other hand is not like the general technique equipment that supports non-military use, but as the backup of weapon equipment for national defense. The purpose is not to catch up with the technical level of advanced countries, but to maintain the availability and reliability of weapon equipment on one hand, and to comply with the direction of the policy on the other via enhancement on the rate of adequate use for weapon equipment; so that independent construction of national defense can be achieved. Since the skill of production of night vision devices effects the development of the fighting ability, as well as its high sensitivity, such skill is thus seen as defense technology. Under consideration by the manufacturing country on political and global safety, there would be some limitation upon technical transfer. Due to the high cost and risk in technology, even corporations with abundant wealth and technical ability cannot research and develop each new technology independently. Therefore, in order to lower the risk and shorten the technical distance between the company itself and advanced countries, most of the processes are dependent on technical introduction. However, technical study relates to the success of the transferring performance and this is one of the important key factors for success of technical transfer. The discussion on technical transfer is not to be neglected, thus this research takes the domestic night vision device as the target of study. In addition to discussion on the mode of transfer, the angle of technical study is taken for researching the influence towards the performance, which is the motive of this research. This research applied the case study method to discuss technical study of night vision devices and performance of technical transfer. The results of the research derived the following topics: 1. Personal study imposes a positive influence on the transfer performance. 2. Study within the function imposes a positive influence on transfer performance. 3. Study between functions imposes a positive influence on transfer performance. 4. Study in multi levels imposes a positive influence on transfer performance. 5. Client study imposes a positive influence on transfer performance. 6. Internet study imposes a positive influence on transfer performance. 7. Depth of study imposes a positive influence on transfer performance.

Keywords : Technical Study ; Technical Transfer ; Night Vision Device

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REFERENCES

一、中文部分 1. 方士杰 (1999), 「技術取得模式與技術取得績效之研究-電子業之實證分析」, 管理學報, 第十六卷第一期, 頁151-174。 2. 王美音譯 (1998), 知識創新之泉:智價企業的經營, 台北:遠流出版社。 3. 田育妮 (2002), 「法人科技專案對台灣紡織業技術創新與技術移轉績效之研究」, 輔仁大學織品服裝研究所碩士論文。 4. 毛倩文 (1991), 「我國廠商國際技術引進成效關鍵

因素之研究」，政治大學國際貿易研究所碩士論文。 5. 朱倍瑩（2000），「知識整合機制與創新策略配合類型對知識移轉績效影響之研究 高科技與服務業之比較」，中原大學企業管理研究所碩士論文。 6. 江炯聰（1984），「產業發展與技術移轉之評價?兼論日韓汽車技術合作之個案」，台灣經濟研究月刊，第7卷第10期，頁81-87。 7. 李仁芳（1990），「管理心靈」，台北:商略印書館。 8. 吳榮義、陳彥煌（1988），「美商投資的貿易及技術轉移效果」，中央研究院美國文化研究所。 9. 林子敬（1999），「電子資訊產業技術移轉績效之研究」，長榮管理學院經營管理研究所碩士論文。 10. 林麗香（1999），「國防技術發展與實務-以航太工業為例」，空軍學術月刊，第509期，頁37-45。 11. 林麗娟，「國際技術合作策略與技術學習模式」，台北:中國生產力中心，1995年產業科技研究發展管理研討會案例暨論文集，第三冊，頁46-60。 12. 林明杰（1992），「技術能力與技術引進績效相關之研究」，政治大學企業管理研究所博士論文。 13. 封德台（2000），「技術學習與技術能力關係之研究?國內資訊軟體產業之實證」，國立政治大學企業管理學系博士論文。 14. 洪東坡（2004），「公民營工廠工程專案之跨國技術學習與技術移轉之比較研究」，大葉大學國際企業管理研究所碩士論文。 15. 洪鏗評（1997），「知識技術跨國移轉與組織學習電子資訊廠商赴大陸生產之個案研究」，國立臺灣大學國際企業管理研究所碩士論文。 16. 俞慧芸（1995），「政府科技專案技術移轉模式與移轉績效之研究:以台灣電子資訊產業為例」，中山大學企業管理研究所博士論文。 17. 洪德芳（1993），「高科技企業技術策略與行銷策略配合對新產品發展績效關係影響之研究」，中原大學企業管理研究所碩士論文。 18. 姜占魁（1989），「組織行為與行政管理」，作者自印。 19. 苗沛元（2000），「新型光放管簡介」，軍品科技新知，第112期，頁30-41。 20. 苗沛元（2002），「征服夜暗創造優勢 - 新一代夜視裝備發展趨勢」，軍品科技新知，第119期，頁65-77。 21. 涂嘉玲（2001），「工研院技術移轉之績效評估?以電子資訊領域為例」，台灣大學會計研究所碩士論文。 22. 國家科學委員會（1997），「中華民國科學技術統計要覽」。 23. 徐芳穎（1994），「百貨公司經營技術移轉之研究 以台北市為例」，政治大學企業管理研究所碩士論文。 24. 陳川正(2000)，「非營利組織的認同管理:以基督教的細胞小組模式等教會為例」，政治大學企業管理學系博士論文。 25. 陳怡之（1995），「我國廠商技術移轉需求與特性分析」，行政院國家科學委員會專題研究計畫成果報告。 26. 陳怡之（1993），「技術移轉策略規劃-契約內容與考量因素」，保護智慧財產權系列講習會演講資料輯三，行政院國家科學委員會。 27. 陳念文、楊榮德、高達聲（1987），「技術論」，湖南教育出版社。 28. 張森林（1991），「國際技術移轉績效影響因素探討?以電子業、化學業為例」，台灣大學商學研究所碩士論文。 29. 許士軍（1982），「管理學」，台北:東華書局。 30. 曾建勳（1985），「技術移轉對產品開發活動之影響 我國機械工業之研究」，國立政治大學企業管理研究所碩士論文。 31. 楊君琦（2000），「技術移轉互動模式失靈及重塑之研究 以研究機構與中小企業技術合作為例」，台灣大學商學研究所博士論文。 32. 溫元昌（1998），「技術特性、技術能力與技術移轉途徑關係之研究」，國立中正大學企業管理研究所碩士論文。 33. 黃家齊（1990），「技術引進成效影響之研究」，中原大學企業管理研究所碩士論文。 34. 黃俊英(1994)，「企業研究方法」，初版，台北:東華。 35. 葉淑瑜（1993），「跨國技術移轉與組織學習之研究 台灣車廠之個案分析」，中央大學產業經濟研究所未出版碩士論文，頁30-51。 36. 葉惠青（1989），「當前國際技術移轉情勢分析」，台灣經濟研究月刊，第十二卷第三期。 37. 鄭鳴鳴（2001），「武器裝備維護技術移轉方式與績效關係之研究 - 以空軍某發動機附件翻修工廠為例」，國防管理學院資源管理研究所碩士論文。 38. 蔡敦浩（1997），策略性科技管理，高雄復文圖書出版社。 39. 蔡忠育（1995），「技術接受者涉入與技術移轉績效之關係」，國立中央大學企管研究所碩士論文。 40. 劉仁傑、范光瑩（1996），「台灣日系企業技術學習型態之探討」，管理科學學報，第十三卷第二期，頁250-270。 41. 劉瑞圖（1994），「科技管理（八）科技企業的技術移轉」，工業簡訊，第28卷，頁34-45。 42. 劉泰英及吳榮義（1990），「我國民營企業技術引進與技術普及及管道之探討」，台灣經濟研究院。 43. 劉秀娟、湯志安譯（1999），人力資源管理 取得競爭優勢之利器,台北:揚智文化事業股份有限公司,頁287-333。 44. 盧偉斯（1987），「組織學習理論之研究?行動理論觀點與行政組織應用的探討」，政治大學公共行政研究所未出版碩士論文。 45. 賴士葆（1992），「科技策略與新產品發展績效相關研究,科技管理論文集」，大葉文教基金會，頁25-50。 46. 蕭亞男（1999），「零售業技術移轉績效影響因素之研究 以百貨公司為例」，國立成功大學碩士論文。 47. 謝文凱（1993），「技術移轉過程互動程度與技術移轉績效關係之研究 以共同研發聯盟為例」，私立中原大學企業管理研究所碩士論文。 48. 嚴永昇（1987），「技術合作三十年的省思」，經濟雜誌。 1. Abetti, P. A. (1989), " Linking Technology and Business Strategy ", The Presidents Association, The Chief Executive Officers Division of America Management Association, New York. 2. Aoki, M. (1990), " Toward an economic model of the Japanese firm ", Journal of Economic Literature, pp.1-27. 3. Argyris, C. & Schon, D., (1978), " Organizational Learning: A Theory of Action Perspective. " 4. Baranson, J.B. (1991), " Technology Transfer Through the International Firm, " American Economic Association, Vol. 60, pp.435-440. 5. Bierly III, P.E., and Chakrabarti, A.K., (1996), " Technological Learning, Strategic Flexibility, and New Product Development in the Pharmaceutical Industry ", IEEE Transactions on Engineering Management. Vol.43, No.4. 6. Brooks (1966), Multimethod Research Synthesis of Stiles, London: Sage Publication. 7. Brown, J.S, and Duguid, P., (1991), " Organizational Learning and Communities-of-Practice: Toward a Unified View of Working, Learning, and Innovation ", Organization Science, Vol.2, No.1, February, pp.40-57. 8. Buckley, P.J. and Casson, M., (1976), " A Long-run Theory of MNE ' ' , In Jagdish N. Bhagwati (eds.) The International Corporation, Cambridge MA: MIT Press. 9. Burgelman, R.A. and Rosenbloom, R.S. (1989), " Technology Strategy: An Evolutionary Process Perspective " in R.S., Rosenbloom and R.A., Burgelman, ed., Research on Technological Innovation, Management and Policy, Greenwich, Connecticut: JAI PRESS INC. Vol.1.4, pp.1-23. 10. Carayannis, Elias G & Kazuo Kurihara. (1998), " Cooperative research and development agreements (CRADAs) as technology transfer mechanisms ", R & D Management, Apr, pp.79-88. 11. Cohen, Wesley M. & Leventhal Daniel A., (1990), " Absorptive Capacity: A New Perspective on Learning and Innovation ", Administrative Science Quarterly, Vol.35, No.1., pp.128-152. 12. Cutler, W. G. (1991), " Acquiring Technology from Outside ", Research & Technology Management, May-Jun, pp.11-18. 13. Daft, R.L. and Lengel, R. H. (1984), Information Richness: " Anew Approach to Managerial Behavior and Organization Design, " Research in Organizational Behavior, 6: pp.191-233. 14. Daft, R.L. and Lengel, R. H. (1986), " Organizational Information Requirements, Media Richness and Structural Design ", Management Science, Vol.32, No.5, pp.554-571. 15.

Dodgson, M., (1991) , “ Technology Learning, Technology Strategy and Competitive Pressures ” , British Journal of Management, Vol .2, pp.133-149. 16. Dussauge, P., Hart, S. & Ramanantsoa, B., (1992) , Strategy Technology Management, West Sussex:JOHN WILEY & SONS, pp.1-16. 17. Fahey, L., (1999) , “ Competitors - Outwitting, Outmaneuvering and Outperforming ” N.Y.:John Wiley & Sons, Inc. 18. Fiol, C.M., and Lyles, M.A. (1985) , “ Organizational Learning ” , Academy of Management Review, Vol.10.No4, pp.803-813. 19. Flannery, W. T., Spivey, W. A., and Alter III, W. A. (1994) , “ A Heuristic Model of the Technology Transfer Process in Federal Laboratories ” , Technology Management, Vol. 1, pp.94-100. 20. Ford, D. and Farmer, D. (1986), “ Make or Buy: A Key Strategic ” , Long Range Planning, Vol. 19(5), pp.54-62. 21. Frankfort-Nachmias C. and D. Nachmias, (1999), “ Research Methods in the social sciences ” (5th ed.), N.Y., Worth Publishers and ST. Martin ' s Press. 22. Garud, Raghu & Praveen R. Nayyar., (1944) , “ Transformative Capacity:Continual Structure By Inter temporal Technology Transfer ” , Strategic Management Journal,Vol.15, pp.365-385. 23. Gees (1974) , “ he Role of Technology Transfer in Innovation ” , Re-Search Management, Nov. 24. Gilbert, Myrna & Gordey-Hayes, Martyn. (1996) , “ understanding the Process of Knowledge Transfer to Achieve Successful Technological Innovation ” , Technovation, Vol.16. No.6,Jun , pp.301-312. 25. Gibson David V. and Smilor Raymond W. (1991) , “ Accelerating Technology transfer in R&D Consortia, ” Research Technology Management, 34(1). 26. Grant, R. M. (1996) , “ Toward a knowledge-Based Theory of the Firm ” , Strategic Management Journal , 17 (NSI) ,109-122. 27. Hagedoorn, John (1993), “ Understanding the Rational of Strategic Partnering : Inter-organizational Modes of Cooperation and Sectoral Differences. ” Strategy Management Journal, Vol. 14, pp.371-385. 28. Hagedoorn, J. (1990), “ Organizational Modes of Inter-firm Co-operation and Technology Transfer ” , Technovation, Vol. 10(1), pp.17-30. 29. Hamilton, William F., (1992) , “ The Evolution of Corporate Capabilities in Emerging Technologies ” , Interfaces, Vol.22, No.4, pp.13-23. 30. Hedberg, B.L.T., (1981) , How organizations learn and unlearn. In: Nystorm, P.C. and Starbuck, W.H. (Eds.),Handbook of Organizationl Design, Vol.1,New York: Oxford University Press. 31. Helleloid, Duane & Bernard Simonin., (1994) , “ Organizational Learning and a Firm ' s Core Competenc ” , Hemel & Heene (ed.) Competence-Based Competition. 32. Hersen M., and Barlow, D. H. (1976). “ Single-caseexperimental designs: Strategies for Studying behavior. ” N.Y.:Pergamon. 33. Hite, J.M.(1999), “ Embedded Network Ties of EmergingEntrepreneurial Firms: Patterns, Processes, andEvolutionary Path. ” Ph.D. Thesis, The University of Utah,August. 34. Holatius, K. (1995), “ Cultural Adjustment in International Technology Transfer ” , International Journal of Technology Management, 10(7/8), pp.676-686. 35. Imai,K., Nonaka, I. and Takeuchi, H., (1985) , Managing the new product development process:how the Japanese companies learn and Unlearn. In: Clark, K. B., R.H. and Lorenz, C.(Eds.) The Uneasy Alliance, Cambridge, MA:Harvard Business School Press. 36. Inkpen, A. C. and Dinur. A., (1998) , “ Knowledge Management Process and International Joint Venture ” , Organization Science, 19 (4) , PP.454-468. 37. Johnson, H., (1970) , “ The efficiency and welfare implication of the multinational corporation ” , In Kindleberge, Charles (ed.) , The International Corporation, Cambridge, MA:MIT Press. 38. Kacker, M., (1988) , “ International flow of retailing know-how:Bridging the key issues in ndering and changing control. ” Journal of Technology Management,17 (5) , pp.433. 39. Katz, D. and Kahn, R.L., (1966),The Social Psychology of Organizations,New York:John Wiley and Sons. 40. Katz, R., Rebentisch, E. S., and Allen, T. J. (1996) , “ A Study of Technology Transfer in a Multinational Cooperative Joint Venture ” , IEEE Transaction on Engineering Management, 43(1), pp.97-105. 41. Katz, D. and kahn , R.L., (1966) , The Social Psychology of Organizations, New York:John Wiley and Sons. 42. Lawrence S. kleiman., (1998) , “ Human resource management:a tool for competitive advantage. ” 43. Leonard-Barton, D. and Sinha, D.K., (1993) , “ Develop-user Interaction an User Satisfaction in Internal Technology Transfer ” , Academy of Management. 44. Leonard-Barton, D., (1997) , “ Wellsprings of knowledge:Building and Sustaining the sources of innovation ” , Boston:Harvard Business School Press. 45. Leonard-Barton, C., (1992) , “ Core Capabilities and Core Rigidities:a Paradox in Managing New Product Development, ” Strategic Management Journal, Vol.13, pp.111-125. 46. Leroy, G.P., (1978) , “ Transfer of Developing Economics within the Multination Enterprise. ” 47. Lulu, M.; G. Seyoum, and F. W. Swift (1996), “ A Decision Model for Technology Transfer ” , Computer Industry Engineering, Vol. 31(1/2),pp.37-40. 48. Luthans , F., (1988) ,Successful v.s effective real managers, The Academy of management Executive,11 (2) ,pp.127-132. 49. Madu , Christian N., (1989) , “ Transferring Technology To Developing Countries Critical Factors For Success ” , Long Range Planning,PP.115-124. 50. Maidique, M.A., (1980) , “ Entrepreneurs, champions, and technological innovation ” ,Sloan Management Review,pp.59-76. 51. Maidique & Robert A. (1988) , “ Strategic management of technology and innovation ” , Homewood. 52. Mansfield, E., Romeo, A., Schwartz, M., Teece, D., Wagner, S. and Brach, P., (1982) , Technology Transfer, Productivity, and Economic Policy, New York:Norton. 53. Mansfield, E., (1975) , “ International Technology Transfer:Forms, Resource, Requirements, and Policies ” , American Economics Association, 68-2:PP.372-376. 54. Martino, J. P. (1983) , Technological Forecasting for Decision Making ,2nd ed.,New York:North-Holland Publishers. 55. Mintzberg,H., (1973) ,The Nature of Managerial Work,New York:Harper & Row. 56. Noe, R.A., (1986) , Trainees ' attributes and attitudes:Neglected Influences on training effectiveness. Academy of Management Review,11 (4) , pp.736-749. 57. Nonaka,I., (1944) , “ A Dynamic Theory of Organization Knowledge Creation ” , Organization Science, 5 (1) ,pp.14-37. 58. Nonaka,I.and Takeuchi,H., (1995) , “ The Knowledge-Creating Company ” ,N.Y.:Oxford University Press. 59. North,D., (1990) , Institutions,Institutional Change and Economic Performance,Cambridge:Cambridge University Press. 60. Ounjian, M. L. and Carne, E. B. (1987) , “ A Study of the Factors WhichAffect Technology Transfer in a Multilocation Multibusiness Unit Corporation, ” IEEE Transaction on Engineering Management, 34(3), pp.194-201. 61. Pan, Tung-Yu (1994), “ The Technology Transfer Model of AircraftIndustry from IACS to NICS ” , Ph. D. Dissertation of the Rensselaer Polytechnic Institute of Technology, New York. 62. Pascal, R.T., (1984) , “ Perspectives on strategy:the real story behind Honda ' s success ” , California Management Review,pp.47-72. 63. Peno, J. D. and Wallender, H. W. (1977) , “ A Contigent Approach to Technology Policy

Proposing a Cost/Benefit Analysis, " New York, pp.28-29. 64. Pierre Dussauge, Stuart Hart, Bernard Ramanantsoa. (1992) , " Strategic Technology Management " , Singapore, John Wiley & Sons, pp.5-14. 65. Porter, M.E. (1985) , " Competitive Advantage " , New York:Free Press.28. 66. Porter, M.E., (1990) , " Competitive advantage of nations " ,New York : Free press. 67. Porter, M.E. (1991), " Towards A Dynamic Theory of Strategy " , Strategic Management Journal, 12, pp. 95-117. 68. Roberts, J. J. (1977) , The Role of the Service Industry in Technology Transfer, New York:FMME, pp.6-7. 69. Robock, S. H. and Simmonds, K. (1983) , " International Business and Multinational Enterprises, 3rd ed " , Homewood: Richard D. Irwin, Inc., pp.460-463. 70. Rogers, E. M. (1983), Diffusion of Innovations, New York: Free Press. 71. Rosenbloom, B. S., and Cusmano, M. A. (1987), " Technological Pioneering and Competitive Advantage: The Birth of the VCR Industry " , California Management Review, July-August. 72. Roger , E.M. (1972) , " Key concepts and models " Introducing Technology change for Economic Growth and Development , Michigan State University Press , pp.85-101. 73. Roissean et al (1985) , " Technology and structure: The concrete abstractand activity systems of organizations , " Journal of Management,10(3), pp.345-361. 74. Rosenberg, N. and Frischtak, C. (1985) , " International Technology : Concepts, Measures, and Comparisons, Payer, New York. 75. Rubenstein, A. H. (1989), " Managing Technology in the Decentralized Firm " , New York, John Willy and Sons. 76. Santikarn, M. (1981) , Technology Transfer:A Case Study. Singapore:Singapore University Press. 77. Schon D. A. (1967) , Technology and Change: The new Heraclitus. NewYork:Delacorte. 78. Sharif, M.N. (1988), " Basis for Techno-Economic Policy Analysis " , Science and Public Policy, 15-4, pp.217-229. 79. Simonin , B.L., (1999) , " Ambiguity and the process of knowledge transfer in strategic alliances. " , Strategic management journal , (20) , PP.595-623. 80. Sounder, W.E. (1987) , " Managing New Product Innovation, " Toronto:Lexington Books, PP.217-220. 81. Spender,J.C., (1989) , Industry Reipes:The Nature and Sources of Managerial Judgment,Oxford:Blackwell. 82. Steel, L. W. (1989) , Managing Technology. New York: McGraw Hill Book Company. 83. Strassman, W.P. (1968) , " Technological Change and Economic Development:The Manufacturing Experience of Mexico and Puerto Rico, " New York:Cornell University Press, pp.2-36. 84. Teece, D.J., (1977) , " Technology Transfer by Multinational Firms:the Resource Cost of Transferring Technological Know-How, " The Economic Journal, 87, , PP.242-261. 85. Teece, J.D. (1976) , " The Multination Corporation and The Resource Cost of International Technology Transfer, " Ballinger Cambridge, Mass. 86. Teece, D. (1992) , " Competition, cooperation, and innovation " , Journal of Economic Behavior and Organization,pp.1-25. 87. Tushman,M.L.and Nadler,D.A., (1978) , " Information processing as anintegrating concept in organizational design " ,Academy of Management Review,pp.613-624. 88. Washio, H., (1986) , " The Provision of Manuals and Japanese Private Technology Transfer " , The Developing Economies, XXIV, 4, pp.326-333. 89. Wilderman, L., (1998) , " Allianac and networks:The next generation " , International Journal of Technology Management, 15, pp.96-108. 90. Woodward, J. (1965) , Industrial Organization:Theory and practice.London:Oxford University Press. 91. Yan, Aimin, and Barbara Gray (1994), " bargaining power,Management Control, and Performance in UnitedStates-China Joint Ventures:A Comparative Case Study " Academy of Management Journal, 37(6), pp.1478-1517. 92. Yin, R.(1994), " Case Study Research: Design and Methods. " Newbury Park., Sage Publications. 93. Zhao, L. and Reddy, N. M. (1993), " Managing International Technology Transfer Negotiation: A Social Exchange Perspective " , Technovation,Vol. 13(6), pp. 383-397.