

# Relationships among Organizational Innovation, Intellectual Capital, Knowledge Transfer and Organizational Performance

陳昆宏、王泰希康；邴傑民

E-mail: 9607702@mail.dyu.edu.tw

## ABSTRACT

The purposes of this research are examine the organizational innovation, intellectual capital, knowledge transfer and organizational performance. The subjects are Siward Crystal Technology CO.,LTD in Taiwan ; 338 questionnaires are released and the retrieved valid ones are 308 copies. Some concrete suggestions were proposed based on the research results for the reference of Enterprise and administrational authorities in the further researches and discussions. This research was using the method of questionnaire survey together with various kind of statistic analysis and got the important discoveries are stated separately as follows: 1. The different individual variables to organizational innovation, intellectual capital, knowledge transfer and organizational performance come out a partly remarkable discrepancy. 2. Organizational innovation, intellectual capital, knowledge transfer and organizational performance reveals outstanding positive relation. 3. The interaction of intellectual capital and organization innovation reveals interference effect of the part to the organizational performance. 4. The interaction of intellectual capital and knowledge transfer reveals interference effect to the organizational performance.

Keywords : organization innovation ; intellectual capital ; knowledge transfer ; organization performance

## Table of Contents

中文摘要 . . . . .	iii	英文摘要 . . . . .
iv 誌謝辭 . . . . .	vi	內容目錄 . . . . .
. ?表目錄 . . . . .	ix	圖目錄 . . . . .
. . xii 第一章 緒論 . . . . .	1	第一節 研究背景與動機 . . . . .
. . . . . 1 第二節 研究目的 . . . . .	4	第三節 研究流程 . . . . .
. . . . . 5 第四節 研究限制 . . . . .	6	第二章 文獻探討 . . . . .
. . . . . 7 第一節 組織創新 . . . . .	7	第二節 智慧資本 . . . . .
. . . . . 11 第三節 知識移轉 . . . . .	27	第四節 組織績效 . . . . .
. . . . . 36 第三章 研究設計 . . . . .	44	第一節 研究架構 . . . . .
. . . . . 44 第二節 研究假設 . . . . .	45	第三節 研究範圍與對象 . . . . .
. . . . . 46 第四節 研究變項之操作性定義與衡量 . . . . .	47	第五節 資料分析方法 . . . . .
. . . . . 56 第六節 預試測驗與因素分析 . . . . .	58	第四章 研究結果分析 . . . . .
. . . . . 74 第一節 回收樣本情況與問卷信度檢測 . . . . .	74	第二節 各量表與研究變項之描述性統計 . . . . .
. . . . . 77 第三節 各相關變項之差異分析 . . . . .	95	第四節 各研究變項之相關分析 . . . . .
. . . . . 107 第五節 智慧資本干擾效果分析 . . . . .	118	第五章 結論與建議 . . . . .
. . . . . 127 第一節 研究發現與討論 . . . . .	127	第二節 研究建議 . . . . .
. . . . . 136 參考文獻 . . . . .	138	附錄A 預試問卷 . . . . .
. . . . . 150 附錄B 正式問卷 . . . . .		
155		

## REFERENCES

- 一、中文部份 王美音，楊子江(1997)，創新求勝—智價企業論，台北:遠流出版社出版。 何雍慶(1994)，任務環境、組織結構與組織效能之關係，企業經營策略與經營績效學術研討會論文輯。 李仁芳(1997)，高科技事業中創新類型與組織知識創造之研究，第二屆管理學術定性研究研討會論文集(台大管理學院，75-104)。 宋孟霖(1997)，本國積體電路製造業關鍵成功因素與績效評估制度之研究:實地研究，國立台灣大學會計學研究所未出版之碩士論文。 邱皓政(2000)，量化研究與統計分析:SPSS中文視窗版資料分析範例解析(再版)，台北:五南，14~2-14~3。 吳宗錡(2002)，新竹科學園區知識移轉程度及其績效之研究，私立淡江大學管理科學研究所未出版之碩士論文，24-28。 吳明隆(2000)，SPSS統計應用實務(再版)，台北:松崗。 吳萬益(1994)，中美日在台公司企業文化與管理風格之關係研究，成功大學學報，29，63-90。 吳萬益(1996)，台美日企業在台灣及大陸企業經營環境及競爭策略之研究，台大管理論叢，7(1)，49-84。 洪俊龍(2003)

, 人力資源管理系統、智慧資本與組織績效關聯性之研究，國立中正大學會計學研究所未出版之碩士論文，43-48。胡瑋珊(1999)，知識管理，台北:生產力中心。連世銘(2001)，服務業導入ISO-9000系列品保制度對經營績效之影響模式研究，私立大葉大學工業工程未出版之碩士論文。黃家齊(2000)，人力資源管理系統與組織績效---智慧資本觀點，*管理學報*，19(3)，415-450。黃俊英(1999)，行銷研究:管理與技術(6版)，台北:華泰文化事業公司出版。陳明璋(1979)，組織效能研究途徑及其衡量，*中國行政*，29，48-71。蔡啟通(1997)，組織因素、組織成員整體創造性與組織創新之關係，國立台灣大學商學研究所未出版之博士論文。二、英文部份 Arthur, J. B. (1992). The Link between Business Strategy and Industrial Relational Systems in American Steel Mills. *Industrial and Labor Relations Review*, 45, 488-506. Basis, L. J. & Van Buren, M. E. (1999). Valuing investment in intellectual capital. *International Journal of Technology Management*, 18(5-8), 414-432. Bastes, P. (2001). Inter-firm collaboration and learning: The case of the Japanese automobile industry. *Asia Pacific Journal of Management*, 18(4), 423-441. Betz, F. (1987). Managing technology competing through new ventures - Innovation, and corporate research. New Jersey: Prentice Hall. Bonties, N. (1998). Intellectual Capital. An Exploratory study that develops measures agreement Decision, 36, 63-76. Brooking, A.(1996). Intellectual capital. London: International Thomson Business Press. Cameron, K. (1978). Measuring Organizational Effectiveness in Institutions of Higher Education. *Administrative Science Quarterly*, 23, 604-629. Campbell, J. P. (1977). On the Nature of Organizational Effectiveness. San Francisco: Jossey Bass, 8. Daft, R. L. (1978). A Dual-core Model of Organizational Innovation. *Academy of Management Journal*, 21, 193-210. Dalton, D. R., William, D.T., Michael, J. S., Gordon, J. F., & Human, W.P. (1980). Organization Structure and Performance: A critical Review. *Academy of Management Review*, 5 (1). Damanpour, F. & Evan, W. M. (1984). Organizational innovation and Performance: The problem of organizational Lag. *Administrative Science Quarterly* , 29, 392-409. Damanpour, K. A. , Szabat, & Evan W. M. (1989). The Relationship Between Types of Innovation and Organizational Performance. *Journal of Management Studies*, November, 587-601. Damanpour, Fariborz. (1991). Organizational innovation: a meta analysis of effects of determinants and moderators. *Academy of Management Journal*, 34(3), 555-590. Damanpour, F. (1996). Organizational complexity and innovation: Developing and testing multiple contingency models. *Management Science*, 42(5), 693-716. Davenport, T. H., & Prusak, L. (1999). Working knowledge – How organization manage what they know. Boston: Harvard Business School Press. Delery, J. E. & Doty, D. H. (1996). Modes of Theorizing in Strategic Human Resources Management: Tests of Universalistic, Contingency, and Configurational Performance Prediction. *Academy of Management Journal*, 39, 802-835. Dess, G. G., & Robinson, R. B., Jr. (1984). Measuring Organizational Performance in the Absence of Objective Measure: the Case of the Privately – Held Firm and Conglomerate Business Unit. *Journal of Strategic Management*, 5(3), 265-273. Dixon, N. M.(2000). Common knowledge: how companies thrive by sharing what they know. Boston: Harvard Business School Press. Drucker, P. F. (1993). Post-Capitalist Society. New York: Harper Business. Drucker, P. F. (1998). The discipline of innovation. *Harvard Business Review*, Nov/Dec, 149-157. Dyer, L., & Reeves, T. (1995). HR strategies & firm performance: What do we know and where do we need to go?. *International Journal of Human Resource Management*, 6, 656-670. Dzinkowski, R. (2000). The value of intellectual capital. *The Journal of Business Strategy*, 21(4), 3-4. Edvinsson, L. & Sullivan, P., (1996). Developing a model for managing intellectual capital. *Journal of European Management*, 4(4), 356-364. Edvinsson, L. & Malone. M. (1997). Intellectual capital. New York: Harper Business. Fey, C. F., Bjorkman, I., and Pavlovskaya, A., (2000). The Effect of Human Resource Management Practices on Firm Performance in Russia. *International Journal of Human Resource Management*, 11, 1-18. Gautier, U. E. (1990). Technology Management in Organizations. Sage. California. Gilbert, M., & Gordey-Hayes, M. (1996). Understanding the process of knowledge transfer to achieve successful technological innovation. *Technovation*, 16(6), 301-302. Govindarajan, V. (1984). Appropriateness of Accounting Data in Performance Evaluation: An Empirical Examination of Environmental Uncertainty As an Intervening Variable. *Accounting Organizations and Society*, 9(2), 125-135. Grant, R. M. (1996b). Toward A Knowledge-based Theory Of The Firm. *Journal of Strategic Management*, Winter Special Issue, 109-122. Graphing, K. & Kaufman, G. (1988). Innovation: A Cross-Disciplinary respective, Oslo. Norway: Norwegian University Press. Guest, D. E. (1997). Human resource management and performance: a review & research agenda. *International Journal of Human Resource Management* 8(3), 263-276. Guthrie, J. (2001). The management, measurement and the reporting of intellectual capital. *Journal of Intellectual Capital*, 2(1), 27-41. Hall, R. H. (1991). Organizations: Structures, Processes and Outcomes. New Jersey: Prentice Hall. Harem, T., Kroch, G., & Roos, J. (1996). Managing Knowledge: perspectives on cooperation and competition. London: SAGE Publications, 116-136. Henderson, R. M. & Clark, K. B. (1990). Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms. *Administrative Science Quarterly*, 35, 9-30. Huselid, M. A. (1995). The Impact of Human Resource Management Practices on Turnover, Productivity, and Corporate Financial Performance. *Academy of Management Journal*, 38, 635-672. Joanne, R. ( 2000 ) . From know-how to show-how? questioning the role of information and communication technologies in knowledge transfer. *Technology Analysis & Strategic Management*, 12(4), 429-443. Johns, G. (1993). Constraints on the adoption of psychology-based personnel practices: Lessons from organizational innovation. *Personnel Psychology*, 46, 569-592. Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31-36. Kaplan, R. S. & Norton, D. P. (1992). The balanced scorecard – Measures that drive performance. *Harvard Business Review*, Jan/Feb, 71-79. Kaplan, R. S. & Norton, D. P. (1993). Putting the balanced scorecard to work. *Harvard Business Review*, Sep/Oct, 134-147. Kaplan, R. S. & Norton, D. P. (1996). Using the balanced scorecard as a strategic management system. *Harvard Business Review*, Jan/Feb, 75-85. Khan, A. M. & Manopichetwattana, V.(1989). Innovative and No innovative Small Firms: Types and Characteristics. *Management Science*, May, 597-606. Knight, K. E. (1967). A descriptive model of the intra-firm innovation process. *Journal of Business*, 4, 478-496. Kogut, B. (1988). Joint Ventures: Theoretical and Empirical Perspectives. *Journal of Strategies Management*, 319-322. Lane, P. J. & Lubatkin, M. (1998). Relative Absorptive Capacity and Interorganizational Learning. *Journal of Strategies Management*, 461-477. Marguish, D. G. (1982). The anatomy of successful innovation. Cambridge: Winthrop

publishers. Masoulas, V. (1998). Organizational requirements definition for intellectual capital management. *International Journal of Technology Management*, 16(1-3). 126-143. Maud, C. N., Kuei, C. H., & Jacob, R. A. (1996). An Empirical Assessment of the Influence of Quality Dimension on Organizational Performance. *Internal Journal of Production Research*, 34(7), 1943-1962. Nonaka, I. & Takeuchi, H. (1995). *The Knowledge-Creating Company*. New York: Oxford University Press. Nunnally, J. C. (1978). *Psychometric Theory*(2nd ed.). New York: McGraw-Hill. O ' Dell, C. S., & Grayson, C. J. (1998). If only we know what we know: the transfer of internal knowledge and best practice. New York: Free Press. Porter, M. E. (1996). What is Strategy?. *Harvard Business Review*, 6, 62-78. Robbins, S. P. (1990). *Organizational Theory : Structure, Design, and Applications*(3rd ed.). New Jersey: Prentice Hall. Robbins, S. P. (1996). *Organizational behavior: Concepts, controversies and applications*. New Jersey: Prentice-Hall. Roberts, J. (2000). From Know-How To Show-How ? Questioning The Role of Information And Communication Technologies In Knowledge Transfer. *Technology Analysis & Strategic Management*, 429-443. Roos, G. & Roos, J. (1997). Measuring your company ' s intellectual performance. *Long Range Planning* (30:3), 413-426. Roos, G., Roos, J., Edvinsson, L., & Dragonetti, N. C. (1998). *Intellectual capital:Navigating in the new business landscape*. London:Macmillan Business. Schumpeter, J. A. (1934). *The Theory of Economic Development*. Cambridge. Massachusetts: Harvard University Press. Seashore, S. E., & Yuchtman, E. (1967). Factorial analysis of organizational performance. *Administrative Science Quarterly*, 12(3), 377-395. Snell, S. A., Youndt, M. A., & Wright, P. M. (1996). Establishing a framework for research in strategic human resource management: Merging resource theory and organizational learning. Connecticut: JAI Press, 61-90. Steers, R. M. (1975). Problems in the Measurement of Organizational Effectiveness. *Administrative Science Quarterly*, 20(4), 46-558. Stewart, T. A. (1997). Intellectual capital: The new wealth of organizations. Doubleday/Currency. New York. Sullivan, P. H. (2000). Value-driven intellectual capital: How to convert intangible corporate assets into market value. New York: John Wiley & Sons Inc. Swamidass, P. M., & Newwell, V. T. (1987). Manufacturing Strategy,environmental Uncertainty and Performance: A Path AnalytiModel. *Management Science*, 33(4), 509-524. Tushman, M. L. & Nadler, D. A. (1986). Organizing for Innovation. *California Management Review*, 28, 74-92. Verkasalo, M., & Lappalainen, P. (1998). A method of measuring the efficiency of the knowledge utilization process. *IEEE Transactions on Engineering Management*, 45(4), 414-423. Ven de ven, A. H. & Ferry, D. L. (1980). *Measuring and Assessing Organization*. New York: John Wiley & Sons. Venkatraman, N., & Ramanujam, V. (1986). Measurement of Business Performance on Strategy Research: A Comparison of Approach. *Academy of Management Review*, 11(4), 801-814. Vickery, S. K., Drogue, C., & Markland, R. E. (1993). Production Competence and Business strategy: Do They Affect Business Performance?. *Decision Science*, 24(2), 435-455. Wiig, K. M. (1997). Integrating intellectual capital and knowledge management. *Long Range Planning*, 30(3), 399-405. Youndt, M. A., Snell, S. A., Dean, J. W., Jr., & Lepak, D. P. (1996). Human resource management, manufacturing strategy and firm performance. *Academy of Management Journal*, 39(4), 836-866.