

組織學習能力、智慧資本對公司績效影響之研究 = The impact of organizational learning capability, intellectual capital on f

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摘要

本研究主要探討企業具有高度組織學習能力下，能否不斷累積與更新智慧資本(包含人力、組織及關係資本)，進而增進公司績效(區分為財務績效與非財務績效)。以我國上市(櫃)電子公司為母體進行問卷調查，有效樣本數為383份。以結構方程模式為研究工具，並分析三個模式，實證結果顯示在組織學習能力正向影響財務績效的模式中，人力資本是最重要的中介變數；在組織學習能力正向影響非財務績效的模式中，關係資本是最具影響力的中介變數；在組織學習能力先正向影響非財務績效再影響財務績效的模式中，藉由關係資本的影響力最大，其次為人力資本。但組織學習能力對財務績效與非財務績效之直接影響，在統計上並不顯著，而是透過中介變數。因此，我國資訊電子產業要增進公司績效，除提升人力資本外，要格外重視並強化關係資本，但也不可忽略組織資本的重要性。最後，根據研究結果，提出討論並對管理實務及後續研究提出建議。

關鍵詞：組織學習能力、智慧資本、公司績效、財務績效、非財務績效

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參考文獻

- 參考文獻 一、中文部份 Yeung, A. K., Ulrich, D. O. Nason, S. W., & Von Glinow, M. A.(2000), 組織學習能力(劉復苓譯), 台北:聯經出版社。天下雜誌(2011), 「明日製造業」獨家評比分析結果出爐[線上資料], 來源: <http://media.cw.com.tw/cw/cwdata/pdf/2011manufature.pdf> [2011, July 13]。天下雜誌(2011), 《天下雜誌》2011年1000大調查[線上資料], 來源: <http://media.cw.com.tw/cw/cwdata/pdf/20110503cwnew.s.pdf> [2011, May 3]。玉山周報(2010), 附加價值率下滑, 台灣面板廠外移[線上資料], 來源: <http://times.hinet.net/times/magazine.do?magid=7700newsid=2722645> [2010, March 11]。田裕斌(2011), 證交所:12產業獲利仍成長[線上資料], 來源:中央社, http://tw.stock.yahoo.com/news_content/url/d/a/111122/1/2w0at.html[2011, November 22]。江妍慧(2006), 電子業成長趨緩科技王國易主?[線上資料], 來源:新台灣新聞週刊, 第544期, <http://www.newtaiwan.com.tw/bulletinview.jsp?bulletinid=63065> [2006, August 24]。邱繼智(2004), 建構學習型組織, 台北:華立圖書股份有限公司。周文賢(2002), 多變量統計分析, 台北:智勝文化事業有限公司。吳安妮(2002), 剖析智慧資本, 會計研究月刊, 204, 57-66。吳安妮(2003), 平衡計分卡之精髓、範疇及整合(上), 會計研究月刊, 211(6), 45-54。吳安妮, 張朝清(2003), 企業智慧資本之理論基礎、類型與管理程序, 今日會計, 90, 1-13。吳安妮(2004), 以平衡計分卡之觀點探討競爭策略對財務及非財務績效之影響 - 以銀行業為研究對象(國科會, NO. NSC94-2416-H-004-042), 台北:行政院國家科學委員會。吳思華(2002), 「我國產業智慧資本先導性個案研究」計畫, 財團法人資訊工業策進會。范眠(2011), 全球IT產業競爭力台灣排名13, 研發環境排第3[線上資料], 來源: <http://www.ithome.com.tw/itadm/article.php?c=69959>[2011, September 28]。徐秀琴, 劉維新(2006), 「代工」困境:台灣產業轉型的迷思[線上資料], 來源: http://soc.thu.edu.tw/2006TSAconference/_notes/2006TSApaper/5-15.pdf[2011, September 28]。張奇(2010), 台灣資通訊產業發展現況[線上資料], 來源:資策會, <http://proj3.moeaidb.gov.tw/nmipo/edm/Event/20100527/2.pdf>[2010, June 1]。張忠本(2009), 台灣IT產業的競爭優勢長青, 經濟日報, 1月30日。陳俐姣(2011), 瑞銀董成康:台灣企業今年獲利減3.5% 加碼電信、金融股[線上資料], 來源:鉅亨網, <http://news.cnyes.com/content/20110907/KDZ5C1NHUN06J.shtml>[2011, September 7]。陳騰文(2002), 組織學習、核心能力與技術部門組織績效關係之研究 - 以電訊業技術部門為例, 私立南華大學資訊管理學研究所未出版之碩士論文。游麗君(2011), 掌握亞洲ICT市場商機潛力[線上資料], 來源:經建會綜計處, <http://www.cepd.gov.tw/m1.aspx?sNo=0014726> [2011, January 20]。黃家齊(2002), 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。曾俊堯, 古永嘉(2004), 智慧資本與公司無形價值關係之研究 - 以台灣製造業為例, 管理與系統, 11(1), 11-30。曾真真, 何雍慶(2004), 人力資本存量對生產力之影響 - 以壽險業業務單位為例, 商管科技季刊, 5(4), 377-390。經濟日報社論(2011), 貿易衰退凸顯了電子產業困境[線上資料], 來源: <http://udn.com/NEWS/OPINION/OPI1/6775375.shtml> [2011, December 12]。楊朝旭(2006), 智慧資本、價值創造與企業績效關聯性之

研究, 中山管理評論, 14(1), 43-78。詹維玲(2004), 知識資本與經濟結構的變化 - 以資訊電子業為例, 科學發展, 381, 70-75。詹錦宏, 吳莉禎(2011), 動能投資策略於台灣股票市場之應用 - 含金融海嘯之影響, 會計學報, 3(2), 1-22。鄭緯筌(2011), MIC:2011年全球半導體產業維持4.2%成長[線上資料], 來源:數位時代, <http://www.bnext.com.tw/focus/view/cid/103/id/20329> [2011, October 5] 劉宗志(2011), 宏碁認損43億元 泛歐裁300人[線上資料], 來源:中國時報, <http://tw.myblog.yahoo.com/jw!cVwHCCiXfH07eQi087eHA-/article?mid=4798> [2011, June 2]。謝孟珣(2011), 2011年第二季我國電子零組件產業回顧與展望[線上資料], 來源:工研院, <http://www.teema.org.tw/industry-information-detail.aspx?infoid=2355> [2011, June 2]。二、英文部分 Acs, Z. J., Anselin, L., & Varga, A. (2002). Patents and innovation counts as measures of regional production of new knowledge. *Research Policy*, 31(7), 1069-1085. Agor, W. H. (1997). The measurement, use and development of intellectual capital to increase public sector productivity. *Public Personnel Management*, 26(2), 175-186. Ahangar, R. G. (2011). The relationship between intellectual capital and financial performance: An empirical investigation in an Iranian company. *African Journal of Business Management*, 5(1), 88-95. Ahmad, A., Bashir, M., & Malik, M. I. (2010). Performance evaluation of conventional banks in Pakistan by using non-financial Measures. *Interdisciplinary Journal of Contemporary Research in Business*, 2(7), 145-154. Aizenman, J., & Lee, J. (2007). International reserves: Precautionary versus mercantilist views, theory and evidence. *Open Economy Review*, 18(2), 191-212. Alegre, J., & Chiva, R. (2008). Assessing the impact of organizational learning capability on product innovation performance: An empirical test. *Technovation*, 28(6), 315-326. Argyris, C., & Schon, D. A. (1978). *Organizational learning: A theory of action perspective*. Reading, Mass: Addison-Wesley. Audrey, V., & Rivka, K. (2002). Managing innovation in a knowledge intensive technology organisation (KITO). *R&D Management*, 32(5), 409-417. Bae, J., & Lawler, J. J. (2000). Organizational and HRM strategies in Korea: Impact on firm performance in an emerging economy. *Academy of Management Journal*, 43(3), 502-517. 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. Bapuji, H., & Crossan, M. (2004). From questions to answers: Reviewing organizational learning research. *Management Learning*, 35(4), 397-417. Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120. Bassi, L. J., & Van Buren, M. E. (1999). Valuing investment in intellectual capital. *International Journal of Technology Management*, 18(5/6/7/8), 414-432. Beach, R., Muhlemann, A. P., Price, D. H. R., Paterson, A., & Sharp, J. A. (2000). Theory and methodology: A review of manufacturing flexibility. *European Journal of Operational Research*, 122(1), 41-57. Bhatnagar, J. (2007). Predictors of organizational commitment in India: Strategic HR roles, organizational learning capability and psychological empowerment. *International Journal of Human Resource Management*, 18(10), 1782-1811. Bhatnagar, J., & Sharma, A. (2005). The Indian perspective of strategic HR roles and organizational learning capability. *International Journal of Human Resource Management*, 16(9), 1711-1739. Bontis, N. (2001). Assessing knowledge assets: A review of the models used to measure intellectual capital. *International Journal of Management Reviews*, 3(1), 41-60. Bontis, N., & Fitz-enz, J. (2002). Intellectual capital ROI: A causal map of human capital antecedents and consequents. *Journal of Intellectual Capital*, 3(3), 223-247. Bontis, N., Keow, W. C. C., & Richardson, S. (2000). Intellectual capital and business performance in Malaysian industries. *Journal of Intellectual Capital*, 1(1), 85-100. Bozbura, F. T., Beskese, A., & Kahraman, C. (2007). Prioritization of human capital measurement indicators using fuzzy AHP. *Expert Systems with Application*, 32(4), 1100-1112. Brooking, A. (1996). *Intellectual capital: Core assets for the third millennium enterprise*. New York: Intellectual Thomson Business Press. Brown, S., Garino, G., & Martin, C. (2009). Firm performance and labor turnover: Evidence from the 2004 workplace employee relations survey. *Economic Modeling*, 26(3), 689-695. Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*(2nd ed.). New Jersey: Lawrence Erlbaum Associates. Calantone, R. J., Cavusgil, S. T., & Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial Marketing Management*, 31(6), 515-524. Camps, J., Alegre, J., & Torres, F. (2011). Towards a methodology to assess organizational learning capability: A study among faculty members. *International Journal of Manpower*, 32(5/6), 687-703. Carlucci, D., Marr, B., & Schiuma, G. (2004). The knowledge value chain: How intellectual capital impacts on business performance. *International Journal Technology Management*, 27(6/7), 575-590. Carmeli, A., & Schaubroeck, J. (2005). How leveraging human resource capital with its competitive distinctiveness the performance of commercial and public organizations. *Human Resource Management*, 44(4), 391-412. Chang, D. S., & Kuo, L. C. R. (2008). The effects of sustainable development on firms' financial performance - an empirical approach. *Sustainable Development*, 16(6), 365-380. Chen, C. J., Shin, H. A., & Yang, S. Y. (2009). The role of intellectual capital in knowledge transfer. *IEEE Transactions on Engineering Management*, 56(3), 402-411. Chen, H. M., & Lin, K. J. (2003). The measurement of human capital and its effects on the analysis of financial statements. *International Journal of Management*, 20(4), 470-478. Chen, J., Zhu, Z., & Xie, H. Y. (2004). Measuring intellectual capital: A new model and empirical study. *Journal of Intellectual Capital*, 5(1), 195-212. Chen, Y. S. (2008). The positive effect of green intellectual capital on competitive advantages of firms. *Journal of Business Ethics*, 77(3), 271-286. Chiva, R., & Alegre, J. (2008). Emotional intelligence and job satisfaction: The role of organizational learning capability. *Personnel Review*, 37(6), 680-701. Chiva, R., & Alegre, J. (2009). Organizational learning capability and job satisfaction: An empirical assessment in the ceramic tile industry. *British Journal of Management*, 20(3), 323-340. Chiva, R., Alegre, J., & Lapedra, R. (2007). Measuring organizational learning capability among the workforce. *International Journal of Manpower*, 28(3/4), 224-242. Claessen, E. (2005). Strategic use of IC reporting in small and medium-sized IT companies: A progress report from a Nordic project. *Journal of Intellectual Capital*, 6(4), 558-569. Clarke, M., Seng, D., & Whiting, R. H. (2011). Intellectual capital and firm performance in Australia. *Journal of Intellectual Capital*, 12(4), 505-530. Cohen, J., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1), 128-152. Cooper, A. C., & Artz, K. W. (1995). Determinants of satisfaction for entrepreneurs. *Journal of Business Venturing*, 10(6), 439-457. Cooper, D. R., & Schindler, P. S. (2001). *Business research*

methods(7th ed.). Boston, Mass.: Irwin/McGraw-Hill Company. Covin, J. G., Slevin, D. P., & Schulz, R. L. (1994). Implementing strategic missions: Effective strategic, structural and tactical choices. *Journal of Management Studies*, 31(4), 481-505. Cyert, R. M., & March, J. G. (1963). A behavioral theory of the firm. Englewood Cliffs, New Jersey: Prentice-Hall. Dai, O., & Liu, X. H. (2009). Returnee entrepreneurs and firm performance in Chinese high-technology industries. *International Business Review*, 18(4), 373-386. Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy Management Journal*, 34(3), 555-590. Danneels, E. (2002). The dynamics of product innovation and firm competences. *Strategic Management Journal*, 23(12), 1095-1121. Dawes, J. (1999). The relationship between subjective and objective company performance measures on market orientation research: Further empirical evidence. *Marketing Bulletin*, 10, 65-75. Day, G. S. (1994). The capabilities of market driven organizations. *Journal of Marketing*, 58(4), 37-52. Day, G. S., & Nedungadi, P. (1994). Managerial representations of competitive advantage. *Journal of Marketing*, 58(2), 31-44. De Castro, G. M., Saez, P. L., & Lopez, J. E. N. (2004). The role of corporate reputation in developing relational capital. *Journal of Intellectual Capital*, 5(4), 575-585. Del Guercio, D., Serry, L., & Woitke, T. (2008). Do boards pay attention when institutional investor activists "just vote no"? *Journal of Financial Economics*, 90(1), 84-103. Demir, R., & Soderman, S. (2007). Skills and complexity in management of IJVs: Exploring Swedish managers' experiences in China. *International Business Review*, 16(2), 229-250. De Pablos, P. O. (2004). Measuring and reporting structural capital: Lessons from European learning firms. *Journal Intellectual Capital*, 5(4), 629-647. Dess, G. G., Ireland, R. D., Zahra, S. A., Floyd, S. W., Janney, J. J., & Lane, P. (2003). Emerging issues in corporate entrepreneurship. *Journal of Management*, 29(3), 351-378. Dixon, N. M. (1997). The hallways of learning. *Organizational Dynamics*, 25(4), 23-34. Dodgson, M. (1993). Analytical lenses on innovation: A research note. *Technology Analysis & Strategic Management*, 5(3), 323-328. Drucker, P. (1993). *Post-capitalist society*. Oxford: Butterworth-Heinemann. Dzinkowski, R. (2000). The value of intellectual capital. *The Journal of Business Strategy*, 21(4), 3-4. Edvinsson, L., & Malone, M. S. (1997). *Intellectual capital: Realizing your company's true value by finding its hidden roots*. New York: Harper Collins Publishers, Inc. Edvinsson, L., & Sullivan, P. (1996). Developing a model for managing intellectual capital. *European Management Journal*, 14(4), 356-364. Eisenhardt, K., & Martin, J. (2000). Dynamic capability: What are they? *Strategic Management Journal*, 21(special issue), 1105-1121. Fang, C. H., Chang, S. T., & Chen, G. L. (2011). Organizational learning capability and organizational innovation: The moderating role of knowledge inertia. *African Journal of Business Management*, 5(5), 1864-1870. Firth, M., Fung, P. M. Y., & Rui, O. M. (2006). Firm performance, governance structure, and top management turnover in a transitional economy. *Journal of Management Studies*, 43(6), 1289-1330. Flostrand, P. (2006). The sell side - observations on intellectual capital indicators. *Journal of Intellectual Capital*, 7(4), 457-473. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Association for Psychological Science*, 18(3), 233-239. Garvin, D. A. (1993). Building a learning organization. *Harvard Business Review*, 71(4), 78-91. Gerhart, B., Wright, P. M., McMahan, G. C., & Snell, S. A. (2000). Measurement error in research on human resources and firm performance: How much error is there and how does it influence effect size estimates? *Personnel Psychology*, 53(4), 803-834. Glynn, M. A. (1996). Innovative genius: A framework for relating individual and organizational intelligences to innovation. *Academy of Management Review*, 21(4), 1081-1111. Goh, S., & Richards, G. (1997). Benchmarking the learning capability of organizations. *European Management Journal*, 15(5), 575-583. Gowen, C. R., Henagan, S. C., & McFadden, K. L. (2009). Knowledge management as a mediator for the efficacy of transformational leadership and quality management initiatives in US health care. *Health Care Management Review*, 34(2), 129-140. Grant, R. M., (1996). Prospering in dynamically-competitive environments: Organization capability as knowledge integration. *Organization Science*, 7(4), 375-387. Grasenick, K., & Low, J. (2004). Shaken, not stirred: Defining and connecting indicators for the measurement and valuation of intangibles. *Journal of Intellectual Capital*, 5(2), 268-281. Guthrie, J. (2001). The management, measurement and the reporting of intellectual capital. *Journal of Intellectual Capital*, 2(1), 27-36. Hair, J. F., William, C. B., Barry, J. B., & Rolph, E. A. (2009). *Multivariate data analysis(7th ed.)*. Englewood Cliffs, New Jersey: Prentice Hall. Hancock, G. R., & Nevitt, J. (1999). Bootstrapping and identification of exogenous latent variables within structural equation models. *Structural Equation Modeling*, 6(4), 394-399. Hansson, B. (1997). Personnel investments and abnormal return: Knowledge-based firms and human resource accounting. *Journal of Human Resource Costing and Accounting*, 2(2), 9-29. Helfat, C. E., & Peteraf, M. A. (2003). The dynamic resource-based view: Capability lifecycles. *Strategic Management Journal*, 24(10), 997-1010. Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 1(1), 104-121. Homburg, C., Wieseke, J., & Hoyer, W. D. (2009). Social Identity and the Service-Profit Chain. *Journal of Marketing*, 73(2), 38-54. Hsu, I. C., & Sabherwal, R. (2011). From intellectual capital to firm performance: The mediating role of knowledge management capabilities. *IEEE transactions on Engineering Management*, 58(4), 626-642. Hsu, Y. H., & Fang, W. (2009). Intellectual capital and new product development performance: The mediating role of organizational learning capability. *Technological Forecasting & Social Change*, 76(5), 664-677. Huber, G. P. (1991). Organizational learning: The contributing processes and the literatures. *Organization Science*, 2(1), 88-115. Hult, G. T. (1998). Managing the international strategic sourcing process as a market driven organizational learning system. *Decision Sciences*, 29(1), 193-216. Hult, G. T. M., & Ferrell, O. C. (1997). Global organizational learning capacity in purchasing: Construct and measurement. *Journal of Business Research*, 40(2), 97-111. Hurley, R. F., & Hult, G. T. M. (1998). Innovation, market orientation, and organizational learning: An integration and empirical examination. *Journal of Marketing*, 62(3), 42-54. Hussni, T., & Ahonen, G. (2002). Managing intangible assets-A question of integration and delicate balance. *Journal of Intellectual Capital*, 3(3), 277-286. Huysman, M. (2000). An organizational learning approach to the learning organization. *European Journal of Work and Organizational Psychology*, 9(2), 133-145. Im, S., & Workman, J. P. Jr.

(2004). Market orientation, creativity, and new product performance in high-technology firms. *Journal of Marketing*, 68(2), 114-132. Ittner, C. D., Larcker, D. F., & Rajan, M. V. (1997). The choice of performance measures in annual bonus contracts. *The Accounting Review*, 72(2), 231-255. Ivergard, T., & Hunt, B. (2005). Towards a learning networked organization: Human capital, compatibility and usability in e-learning systems. *Applied Ergonomics*, 36(2), 157-164. Jackson, D. L., Gilliaspy, J. A. Jr., & Purc-Stephenson, R. (2009). Reporting practices in confirmatory factor analysis: An overview and some recommendations. *Psychological Methods*, 14(1), 6-23. Jerez-Gomez, P., Cespedes-Lorente, J., & Valle-Cabrera, R. (2004). Training practices and organisational learning capability: Relationship and implications. *Journal of European Industrial Training*, 28(2/3/4), 234-256. Jerez-Gomez, P., Cespedes-Lorente, J., & Valle-Cabrera, R. (2005). Organizational learning capability: A proposal of measurement. *Journal of Business Research*, 58(6), 715-725. Jiang, X., & Li, Y. (2008). The relationship between organizational learning and firm's financial performance in strategic alliances: A Contingency approach. *Journal of World Business*, 43(3), 365-379. Jiang, X., & Li, Y. (2009). An empirical investigation of knowledge management and innovative performance: The case of alliances. *Research Policy*, 38(2), 358-368. Johannessen, J. A., & Olsen, B. (1999). Aspects of innovation theory based on knowledge-management. *International Journal of Information Management*, 19(2), 121-139. Johnson, J. L., & Sohi, R. S. (2003). The development of interfirm partnering competence: Platforms for learning, learning activities, and consequences of learning. *Journal of Business Research*, 56(9), 757-766. Johnson, W. H. A. (1999). An integrative taxonomy of intellectual capital: Measuring the stock and flow of intellectual capital components in the firm. *International Journal of Technology Management*, 18(5/6/7/8), 562-575. Joia, L. A. (2000). Measuring intangible corporate assets: Linking business strategy and intellectual capital. *Journal of Intellectual Capital*, 1(1), 68-84. Joia, L. A. (2008). The impact of government-to-government endeavors on the intellectual capital of public organizations. *Government Information Quarterly*, 25(2), 256-277. Kaleka, A., & Berthon, P. (2006). Learning and locale: The role of information, memory and environment in determining export differentiation advantage. *Journal of Business Research*, 59(9), 1016-1024. Kamath, G. B. (2007). The intellectual capital performance of Indian banking sector. *Journal of Intellectual Capital*, 8(1), 96-123. Kang, S. C., & Snell, S. A. (2009). Intellectual capital architectures and ambidextrous learning: A framework for human resource management. *Journal of Management studies*, 46(1), 65-92. Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York: Guilford Press. Kim, D. H. (1993). The link between individual and organizational learning. *Sloan Management Review*, 35(1), 37-50. King, W. R. (2001). Strategies for creating a learning organization. *Information Systems Management*, 18(1), 12-20. Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York: The Guildford Press. Kline, R. B. (2011). *Convergence of structural equation modeling and multilevel modeling*. Thousand Oaks, CA: Sage. Knight, D. J. (1999). Employee turnover: A meta-analysis and review with implications for research. *Academy of Management Review*, 11(1), 30. Kocakulah, M. C., & Harris, D. (2002). Measuring human capital cost through benchmarking in health care environment. *Journal of Health Care Finance*, 29(2), 27-37. Kofman, F., & Senge, P. M. (1993). Communities of commitment: The heart of learning organizations. *Organizational Dynamics*, 22(2), 4-23. Kogut, B. (1988). Joint Venture: Theoretical and empirical perspectives. *Strategic Management Journal*, 9(4), 319-332. Kok, R. A. W., & Biemans, W. G. (2009). Creating a market-oriented product innovation process: A contingency approach. *Technovation*, 29(8), 517-526. Kumpikaite, V. (2008). Human resource development in learning organization. *Journal of Business Economics and Management*, 9(1), 25-31. Kwon, D., & Watts, S. (2007). IT valuation in turbulent times. *Journal of Strategic Information Systems*, 15(4), 327-354. Lai, J. Y. (2009). How reward, computer self-efficacy, and perceived power security affect knowledge management systems success: An empirical investigation in high-tech companies. *Journal of the American Society for Information Science and Technology*, 60(2), 332-347. Lane, P. J., & Lubatkin, M. (1998). Relative absorptive capacity and interorganizational learning. *Strategic Management Journal*, 19(5), 461-477. Lee, H., & Choi, B. (2003). Knowledge management enablers, processes and organizational performance: An integrative view and empirical examination. *Journal of Management Information Systems*, 20(1), 179-228. Lee, T. S., & Tsai, H. J. (2005). The effects of business operation mode on market orientation, learning orientation and innovativeness. *Industrial Management & Data Systems*, 105(3), 325-348. Lei, D., Slocum, J. W. Jr., & Pitts, R. A. (1999). Designing organizations for competitive advantage: The power of unlearning and learning. *Organizational Dynamics*, 27(3), 24- 38. Leithwood, K. A., Aitken, R., & Jantzi, D. (2001). *Making schools smarter: A system for monitoring school and district progress*. Thousand Oaks, California: Corwin Press. Lel, U., & Miller, P. D. (2008). International cross-listing, firm performance, and top management turnover: A test of the bonding hypothesis. *Journal of Finance*, 63(4), 1897-1937. Lemieux, O. P., & Banks, J. C. (2007). High tech M&A - strategic valuation. *Management Decision*, 45(9), 1412-1425. Leonard-Barton, D. (1992). Core capabilities and core rigidities: A paradox in managing new product development. *Strategic Management Journal*, 13(Special Issue), 111-125. Leonard-Barton, D. (1995). *Wellsprings of knowledge: Building and sustaining the sources of innovation*. Harvard College Press. Lepak, D. P., & Snell, S. A. (1999). The human resource architecture: Toward a theory of human capital allocation and development. *The Academy of Management Review*, 24(1), 31-48. Li, Y. H., Huang, J. W., & Tsai, M. T. (2009). Entrepreneurial orientation and firm performance: The role of knowledge creation process. *Industrial Marketing Management*, 38(4), 440-449. Lin, C. H., Peng, C. H., & Kao, D. T. (2008). The innovativeness effect of market orientation and learning orientation on business performance. *International Journal of Manpower*, 29(8), 752- 772. Liu, S. S., Luo, X., & Shi, Y. Z. (2002). Integrating customer orientation, corporate entrepreneurship, and learning orientation in organizations-in-transition: An empirical study. *International Journal of Research in Marketing*, 19(4), 367-382. Lopez-Cabrales, A., Real, J. C., & Valle, R., (2011). Relationships between human resource management practices and organizational learning capability: The mediating role of human capital. *Personnel Review*, 40(3), 344-363. Lopez, S. V. (2005). Competitive advantage and strategy formulation: The key role of dynamic capabilities. *Management Decision*, 43(5), 661-669. Lu, Y., Tsang, E. W. K., & Peng, M. W. (2008). Knowledge management and innovation strategy in the Asia Pacific: Toward an institution-based

view. *Asia Pacific Journal of Management*, 25(3), 361-374. Lukas, B. A., Hult, G. T. M., & Ferrell, O. C. (1996). A theoretical perspective of the antecedents and consequences of organizational learning in marketing channels. *Journal Business Research*, 36(3), 233-244. Lundvall, B. A., & Nielsen, P. (2007). Knowledge management and innovation performance. *International Journal of Manpower*, 28(3/4), 207-304. Luo, Y. (2000). Dynamic capabilities in international expansion. *Journal of World Business*, 35(4), 355-378. Lusch, R. F., & Brown, J. R. (1996). Interdependence, contracting, and relational behavior in marketing channels. *Journal of Marketing*, 60(4), 19-38. Lynn, B. E. (1998). Performance evaluation in the new economy: Bring the measurement and evaluation of intellectual capital into the management planning and control system. *International Journal of Technology Management*, 16(1/2/3), 162-176. Mabey, C. (2008). Management development and firm performance in Germany, Norway, Spain and the UK. *Journal of International Business Studies*, 39(8), 1327-1342. Mackinnon, D. P., Fritz, M. S., Williams, J., & Lockwood, C. M. (2007). Distribution of the product confidence limits for the indirect effect: Program PRODCLIN. *Behavior Research Methods*, 39(3), 384-389. Maranto-Vargas, D., & Rangel, R. G. T. (2007). Development of internal resources and capabilities as sources of differentiation of SME under increased global competition: A field study in Mexico. *Technological Forecasting and Social Change*, 74(1), 90-99. Markovic, M. R. (2008). Managing the organizational change and culture in the age of globalization. *Journal of Business Economics and Management*, 9(1), 3-11. Maury, B. (2006). Corporate performance, corporate governance and top executive turnover in Finland. *European Financial Management*, 12(2), 221-248. Mavridis, D. G. (2004). The intellectual capital performance of the Japanese banking sector. *Journal of Intellectual Capital*, 5(1), 92-115. McElroy, M. W. (2002). Social Innovation Capital. *Journal of Intellectual Capital*, 3(1), 30-39. McGill, M. E., & Slocum, J. W. Jr. (1993). Unlearning the organization. *Organizational Dynamics*, 22(2), 67-79. McKee, D. (1992). An organizational learning approach to product innovation. *Journal of Product Innovation Management*, 9(3), 232-245. Miller, D. (1996). A preliminary typology of organizational learning: Synthesizing the literature. *Journal of Management*, 22(3) 485-505. Mone, M. A., Mckinley, W., & Barker, V. L. (1998). Organizational decline and innovation: A contingency framework. *Academy Management Review*, 23(1), 115-132. Moorman, C., & Miner, A. S. (1998). Organizational improvisation and organization memory. *Academy Management Review*, 23(4), 698-723. Moriarty, J. (2009). How much compensation can CEOs permissibly accept? *Business Ethics Quarterly*, 19(2), 235-250. Mullen, T. P., & Lyles, M. A. (1993). Toward improving management development 's contribution to organizational learning. *Human Resource Planning*, 16(2), 35-49. Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital and the organization advantage. *The Academy of Management Review*, 23(2), 242-266. Nahm, A. Y., Vonderembse, M. A., & Koufteros, X. A. (2004). The impact of organizational culture on time-based manufacturing and performance. *Decision Sciences*, 35(4), 579-607. Nevis, E. C., DiBella, A. J., & Gould, J. M. (1995). Understanding organizations as learning systems. *Sloan Management Review*, 36(2), 73-85. Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1), 14-37. Nunnally, J. C. (1978). *Psychometric theory*(2nd ed.). New York: McGraw-Hill Inc. Nystrom, P. C., & Starbuck, W. H. (1984). To avoid organizational crises, unlearn. *Organizational Dynamics*, 12(4), 53-65. O' Donnell, D., O' Regan, P., Coates, B., Kennedy, T., Keary, B., & Berkery, G. (2003). Human interaction: The critical source of intangible value. *Journal of Intellectual Capital*, 4(1), 82-99. Oswick, C., Anthony, P., Keenoy, T., Mangham, I. L., & Grant, D. (2000). A dialogic analysis of organizational learning. *Journal of Management Studies*, 37(6), 887-902. Panayides, P. M. (2007). The impact of organizational learning on relationship orientation, logistics service effectiveness and performance. *Industrial Marketing Management*, 36(1), 68-80. Pavitt, K. (1991). Key characteristics of the large innovating firm. *British Journal of Management*, 2(1), 41-50. Pedrini, M. (2007). Human capital convergences in intellectual capital and sustainability reports. *Journal Intellectual Capital*, 8(2), 346-366. Pena, I. (2002). Intellectual capital and business start-up success. *Journal of Intellectual Capital*, 3(2), 180-198. Pennings, J. M., Lee, K., & Witteloostuijn, A. V. (1998). Human capital, social capital, and firm dissolution. *Academy of Management Journal*, 41(4), 425-440. Petty, R., & Guthrie, J. (2000). Intellectual capital literature review: Measurement, reporting and management. *Journal of Intellectual Capital*, 1(2), 155-176. Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(4), 531-544. Powell, W. W., Koput, K. W., Smith-Doerr, L. (1996). Interorganizational collaboration and the locus of innovation: Networks of learning in biotechnology. *Administrative Science Quarterly*, 41(1), 116-145. Prado-Lorenzo, J. M., Gallego-Alvarez, I., Garcia-Sanchez, I. M., & Rodriguez-Dominguez, L. (2008). Social responsibility in Spain: Practices and motivations in firms. *Management Decision*, 46(8), 1247-1271. Probst, G., Raub, S., & Romhardt, K. (2000). *Managing knowledge: Building blocks for success*. John Wiley & Sons, Chichester, England, UK. Reed, K. K., Lubatkin, M., & Srinivasan, N. (2006). Proposing and testing an intellectual capital-based view of the firm. *Journal of Management Studies*, 43(4), 867-893. Riahi-Belkaoui, A. (2003). Intellectual capital and firm performance of US multinational firms: A study of the resource-based and stakeholder views. *Journal of Intellectual Capital*, 4(2), 215-226. Roos, G., & Roos, J. (1997). *Measuring your company 's intellectual performance*. Long Ra