

# 知識密集服務業產業人才特質與學習成長績效之關聯性研究

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## 摘要

隨著全球化時代的來臨，加上我國加入世界貿易組織(WTO)與產業西進的影響，使我國眾多產業必須面臨許多經濟上的轉變與衝擊。然而在「知識經濟」時代中，除了專業化與企業化的經營之外，以知識源應用(服務)的價值更是未來所要著重之處。而在1996年合作開發組織(OECD)在報告中指出知識經濟即將改變全球經濟發展的型態，以有知識源加以服務將成為企業生產力提升與成長的主要因素。也隨著知識經濟時代的來臨，經濟主體逐漸轉型為知識密集服務(Knowledge Intensive Service, KIS)的資訊範疇，市場經濟對勞動市場有相當大的控制力，因此知識服務業之人力評估的首要考量亦端賴於知識構面的學習與成長成效。就以全球網絡佈局概念對本國近期而言，未來台灣知識密集服務業的發展，主要目標乃是解決知識密集服務的「技術問題」，然長遠目的則是針對KIS的「人才問題」培植與造就根本探究之。就以上述之，以知識密集服務業為出發點之企業組織，在人力資源發展所強調的乃是組織整體人力需求分析與規劃，以及更要特別著重於對員工知識與技能的認知、對員工個人價值觀念的了解，以及重視員工個人內在的潛能開發與職涯發展。因此，本研究主要是探討知識密集服務產業、知識服務業人才需求特質與平衡計分卡之學習與成長構面之間的關係。當知識服務業人才特質不同時，是否對其學習成長績效有所影響。本研究結果推論出通用的知識密集服務業人才特質，為樂觀開朗、人際和諧、穩重謹慎、專業知識、跨領域知識和語文能力這六項特質，皆能對知識密集服務產業下的員工學習成長績效有顯著的影響。本研究希望能提供給組織在轉型為知識密集服務產業上及員工在面對成為知識密集服務之人才課題上，能瞭解其所扮演的角色、能力及競爭力。並提供建議予企業，期望能適時提升員工知識能力，激發員工專業特質，且企業必須不斷提升人力素質，才能保持企業的競爭力，而企業可以藉著教育訓練活動的實施來改善員工的績效，進而提升人力素質；再者，企業若能善用資訊科技作為員工教育訓練的新模式，不僅可以讓企業的教育訓練成本大幅降低，而且可以迅速提高員工知識及企業競爭力，讓企業的學習更靈活、員工的培育更彈性，以達到企業永續經營。在知識密集服務產業的發展過程中，企業若能將學習資源投資於值得之處，其將會為企業帶來更佳的效益。

關鍵詞：知識密集服務產業、人才特質、平衡計分卡

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## 參考文獻

Chinese Reference 1. 中華民國台灣地區國民所得，行政院主計處。 <http://www.dgbas.gov.tw/>。 2. 中華經濟研究院，<http://proj.moeaidb.gov.tw/kmpp/introduction/main.html>。 3. 王健全(2001)，「知識服務業全球競爭之發展願景與策略」，第四屆全國工業發展會議第五分組會議資料。 4. 台灣經濟研究院(2002)，「知識服務時代之知識密集服務業探索」。 5. 江仁宏(2000)，「應用模糊理論於軟體品質評估之研究」，國防管理學院國防資訊研究所碩士論文。 6. 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碩士論文。 7. 吳思華(2001)，「知識經濟、知識資本與知識管理」，台灣產業研究，第四期，遠流出版公司。 8. 吳秉恩(1986)，組織行為學，台北:華泰書局。 9. 吳秉恩(1999)，「以競爭力為基礎的人力資源策略」，1997 亞洲華人家具研討會，台灣區家具有業同業公會，國際會議中心。 10. 林佩琪(1998)，「高科技產業研究發展績效衡量之研究」，國立台灣大學會計學系研究所碩士論文。 11. 周傳震(2000)，「平衡計分卡制度應用於國防科技研發機構之研究」，國防管理學院資源管理研究所碩士論文。 12. 陳玉梅(1998)，「國際性人才遴選因素之研究」，私立靜宜大學管理科學研究所未出版之碩士論文。 13. 陳信宏(2000a)，「全球運籌管理對台灣資訊電子業的影響」，經濟情勢暨評論季刊，第六卷，第一期，97-113 頁。 14. 陳信宏(2000b)，「從知識的特質論知識經濟之特質與內涵」，科技發展政策報導月刊，SR8910，1245-1256 頁。 15. 陳明璋(2000)，「平衡計分卡在中小企業的應用」，國立台北大學企業管理研究所碩士論文。 16. 馮震宇(2002)，「發展知識服務業的問題與挑戰」，能力雜誌，第553期，26-34 頁。 17. 褚秀敏(1998)，「鍵成功因素與績效評估制度關連性之研究- 以郵局為例」，國立臺灣大學會計學研究所碩士論文年。 18. 詹益民(1996)，「個人屬性、人格特質與內激勵與外附激勵關聯性之研究 - 以交通部數據通訊所員工為例」，國立交通大學管理科學研究所碩士論文。 19. 廖志德(2002)，「知識服務產業的發展與前景」，能力雜誌。 20. 經濟部工業局網站(2002)，網址: <http://www.moeaidb.gov.tw>，經濟部工業局推動新興產業之發展政策與方向新聞稿。 21. 蔡正宏(1996)，「ISO 品保制度認知之研究-以服務業為例」，國立中興大學會計學研究所碩士論文。 22. 薛立敏、承立平、杜英儀、張維倫(2003)，「台灣知識密集服務產業發展策略」，國家政策季刊，第二卷，第二期，第 123-142 頁。 23. 蕭梅苓(1999)，「物流中心績效指標之研究」，國立台北大學會計系碩士論文。 24. 顧志耐(Simon Kuzents)(1966) , <http://3info.virtualave.net/database/msmsg/30.html>。

English Reference 1. Allport, G. W., (1936). Personality: A Psychological Interpretation, New York: McGraw-Hill. 2. Anastasi, A., (1998). Psychological testing (6th ed.), New York: Macmillan. 3. Atkinson, A. A., Waterhouse, J. H., and Wells, R. B., (1997). A stakeholder approach to strategic performance measurement, Sloan Management Review, 25-37. 4. Bilderbeek, R., et al., (1998). Services in Innovation: Knowledge Intensive Business Services (KIBS) as Co-Producer of Innovation, TSER-SI4S-Project, TNO-SI4S Synthesis Papers3. 5. Brian O ' Connell, (2002). The Career Survival Guide: Making Your Next Career Move, McGraw-Hill Trade, 1st edition. 6. Cattell, R. B., (1943). The Description of Personality: Basic Trait Resolvedinto Clusters, Journal of Abnormal and Social Psychology, 38, 476-506. 7. Chen, S. J., and Hwang, C. L., (1992). Fuzzy Multiple Attribute Decision Making Methods and Applications, Springer-Verlag. 8. Costa, P. T., and McCrae, R. R., (1986). Age, personality, and the Holtzman Inkblot Technique, International Journal of Aging and Human Development 23, 115-125. 9. Costa, P. T., and McCrae, R. R., (1986). Cross-sectional studies of personality in a national sample: I. Development and validation of survey measures, Psychology and Aging 1, 140-143. 10. Dahlman, C. J., (1999). Innovation and learning: The two faces of R&D, Economic Journal, 569-596. 11. Delgado, M., Herrera, F., Herrera-Viedma, E., and Martinez, L., (1998). Combining Numerical and Linguistic Information in Group Decision Making, Journal of Information Sciences, 107, 177-194. 12. Drucker, P. F., (1999). Management Challenges for the 21st Century, HarperBusiness, New York. 13. Epstein, M. J., and Manzoni, J. F., (1997). Translation strategy into action, Management Accounting, 28-36, Aug. 14. Galton, F., (1984). Measurement of Character, Fortnightly Review, 36, 179-185. 15. Hair, Anderson, Tatham, and Black, (1998). Multivariate Data Analysis with Readings, New York: Maxwell MacMillan International. 16. Judge, Timothy A., and Joyce, E. B., (2001). Relationship of Core Self-Evaluation--- self-Esteem, Generalized Self-Efficacy, Locus of Control, and Emotional Stability---with Job Satisfaction and Job Performance: A Meta-Analysis, Journal of Applied Psychology, 86(1), 80-92. 17. Kaplan, R. S., and Norton, D. P., (1992). The Balanced Scorecard - Measures That Drive Performance, Harvard Business Review, 71-79. 18. Kaplan, R. S., and

Norton, D. P., (1993). Putting the Balanced Scorecard to Work, Harvard Business Review, 134-142. 19. Kaplan, R. S., and Norton, D. P., (1996). Using the Balanced Scorecard as a Strategic Management System, Harvard Business Review, 75-93. 20. Kaplan, R. S., and Norton, D. P., (1996). The balanced scorecard: translating strategy into action, Harvard Business School Press, Boston, Massachusetts. 21. Kaufmann, A., and Gupta, M. M., (1991). Introduction to Fuzzy Arithmetic: Theory and Application, Van Nostrand Reinhold, New York. 22. Klir, G. J., and Yuan, B., (1995). Fuzzy Sets and Fuzzy Logic - Theory and Application, Prentice-Hall Inc., New Jersey. 23. Koschatzky, K., and Zenker, A., (1999). The regional embeddedness of small manufacturing and service firms: regional networking as knowledge source for innovation, Working papers firms and region NO. R2/1999, ISI, Karlsruhe. 24. Miles, I., Kastrinos, N., Flanagan, K., Bilderbeek, R., den Hertog, P., Huntink, W., Bouman, M., (1994). Knowledge-Intensive Business Services: Their Roles as Users, Carriers and Sources of Innovation, PREST, Manchester. 25. Muller, E., (2001). Innovation Interactions between Knowledge-Intensive Business Services and Small-and Medium-sized Enterprises --- Analysis in Terms of Evolution, Knowledge and Territories, Physica, Heidelberg. 26. Muller, E., and Zenker, A., (2001). Business Services as Actors of Knowledge Transformaiton: the Role of KIBS in Regional and National Innovation Systems, Research Policy, 9(30). 27. Niven, P. R., (2002). Balanced Scorecard, Step by Step, John Wiley and Sons. 28. Nonaka, I. and Takeuchi, H., (1995). The Knowledge-Creating Company, Oxford University Press. 楊子江、王美音譯 , (1997) , 創新求勝:智價企業論 , 台北 , 遠流出版。 29. Nunnally, J. C., (1978). Psychometric Theory, 2nd edition, New York: McGraw Hill. 30. Organization for Economic Cooperation and Development (OECD), (1996). Science, technology and industry scoreboard: benchmarking knowledge-based Economies, Paris. 31. Organization for Economic Cooperation and Development (OECD), (1997). Internationalization of Industrial R&D: Patterns and Trends, Paris: OECD. 32. Robbins, S. P., (1998). Organizational Behavior (8th ed.), Upper Saddle River, NJ, Prentice Hall International. 33. Rotter, J. B., (1954). Social learning and clinical psychology, Englewood Cliffs, NJ: Prentice-Hall. 34. Rotter, J. B., (1966). Generalized expectancies for internal versus external control of reinforcement, Psychological Monographs, 33(1), 300-303. 35. Tatikonda, U. L., and Rao, J. T., (1998). We Need Dynamic Performance Measures, Management Accounting, 49, Sep. 36. Vivien, L., & Eike, W., (1998). The Demand of banks for knowledge-intensive services in the Rhine-Main Region, Competitive Advantage by Networking the Development of the Frankfurt and Rhine-Main Region. 37. Zadeh, L. A., (1965). Fuzzy Sets, Information and Control, 8, 338-353. 38. Zimmerman, H. J., (1991). Fuzzy Set Theory and Its Applications, 2nd, Kluwer Academic Publishers, Boston.