

# An Analysis of Core Competence by Fuzzy Integral Analytical hierarchy Process-A Case Study of Beauty Industry

黃玲娟、謝雅惠

E-mail: 9510721@mail.dyu.edu.tw

## ABSTRACT

In recent years, government extremely promotes knowledge economic as the development direction after the leave of traditional industry in Taiwan. Since the prosperity of beauty industry economic and the scale are constantly internationalized, the staff of the beauty industry must be improved in contrast. In order to raise the human resources, government develops educating and training for core competence with great efforts. Therefore, how to cultivate and educate the beauty industry staff to be much more competitive would become the crucial issue. In this study, we use fuzzy integral to measure the subjective human evaluation, and apply fuzzy measure to represent the relationship between two attributes, implement analytical hierarchy process to get relative weights and rank attributes. The result of our study shows that the core competence is “ the skill of make up ” and its ’ component are “ bride-make-up ” and “ stage-make-up ” .

Keywords : Core Competence ; Education and Training ; Beauty Industry ; Core Competition ; Fuzzy Integral ; Fuzzy Measure ; Analytical Hierarchy Process

## Table of Contents

目錄 封面內頁 簽名頁 授權書 iii 中文摘要 iv 英文摘要 v 誌謝 vi 目錄 viii 圖目錄 xi 表目錄 xii 第一章 緒論 1.1 研究背景與動機 1 1.2 研究目的 5 1.3 研究流程 6 1.4 研究限制 7 第二章 文獻探討 2.1 核心職能定義 8 2.2 美容的定義 14 2.3 專業美容從業人員之職能需求 16 2.4 教育訓練的意義 22 2.4.1 教育訓練的定義 23 2.4.2 教育訓練之目的 27 2.5 核心競爭力的意義 29 2.5.1 核心競爭力類型 30 2.6 層級分析法 32 2.6.1 層級分析法的適用範圍 33 2.6.2 層級分析法的基本思路 34 2.6.3 層級分析法的評估尺度 35 2.6.4 層級分析法的基本假設 36 2.6.5 層級分析法的理論基礎 37 2.6.6 一致性檢定 39 2.7 模糊測度 41 2.8 模糊積分 45 第三章 研究方法 3.1 AHP評估架構圖 47 3.2 層級分析法的步驟 47 3.2.1 建立層級結構 50 3.2.2 計算各層級要素之權重 50 3.2.3 計算特徵值及特徵向量 51 3.2.4 問卷的一致性檢定 51 3.3 模糊測度與模糊積分 52 3.4 模糊積分層級分析法 52 3.5 範例分析 53 第四章 實證研究 4.1 資料收集 56 4.2 研究對象 56 4.3 資料分析 56 4.3.1 一致性檢定 57 4.3.2 層級分析法求權重 58 4.3.3 模糊積分層級分析法求模糊權重 62 4.4 分析結果 64 第五章 結論與建議 5.1 研究結論 65 5.2 研究建議 67 5.3 未來研究 68 參考文獻 71 附錄 78

## REFERENCES

一、中文文獻 吳思華 (1993)。策略九說。世界經理文摘。85-96。 吳美蓮, 林俊毅著 (2002)。人力資源管理 - 理論與實務。台北市: 智勝文化事業有限公司。 李大偉 (1993)。如何建立企業內教育訓練體系。就業與訓練, 11 (5), 62-71。 李長貴著 (2000)。人力資源管理 - 組織的生產力與競爭力。台北市:華泰文化事業公司。 李漢雄 (2001)。人力訓練與發展。台北市:國立空中大學。 李樹中 (2001)。公務人員專業職能需求研究 - 以某辦公家具公司為例。國立中央大學人力資源管理研究所碩士論文, 未出版, 桃園縣。 李聲吼 (1997)。人力資源發展的能力內涵。就業與訓練, 15 (2), 51。 村上良三著, 陳文光譯 (1988)。人事考核手冊 - 制度設計與運用。台北市:台華工商圖書出版公司。 周信宏 (2000)。企業核心競爭力。台北:聯經圖書。 林張群、鍾佳雯 (2000, 6月)。模糊積分在資訊人員遴選之應用。2001年資訊管理學術暨實務研討會。頁101-108。 施能仁、施純楨、施若竹 (2004)。計量經濟。台北縣:高立圖書。 徐女琇、邱素沁 (1998)。美容從業人員專業能力之研究。技術學刊。13 (4), 529-538。 張施言 (1995)。Fuzzy入門人類思維的新境界模糊理論。台北市:全欣資訊圖書股份有限公司。 93-102。 張裕隆 (1998)。我國管理才能評鑑工具發展及信度分析研究。國科會專題研究報告。 許士軍 (1995)。管理學。台北市:東華書局。 陳水竹 (1994)。企業訓練效益評估的規劃。就業與訓練, 12 (4), 3-7。 陳志鈺 (2001)。百貨業樓面管理人員職能量表之建立 - 以某百貨公司為例。國立中央大學人力資源管理研究所碩士論文, 未出版, 桃園縣。 陳志豪 (1999)。業務人員職能需求分析 - 以某壽險公司為例。國立中央大學人力資源管理研究所碩士論文, 未出版, 桃園縣。 陳亭羽、曾國雄 (2000)。模糊測度應用於多屬性決策時之資訊需求量簡化研究。管理學報, 17 (3), 483-514。 陳姿妤 (1997)。員工教育訓練成效評估之研究—以本國銀行業為例。國立中興大學企業管理研究所碩士論文, 未出版, 台北市。 黃宜純 (2003)。美容與美髮沙龍店長專業能力分析研究。國立台灣師範大學人類發展家庭系博士論文, 未出版, 台北市。 黃英忠 (1993)。產業訓練論。台北市:三民書局。 黃英忠 (1995)。現代人力資源管理。台北市:華泰書局。 劉世勳、李然堯 (1995)。情境式學習在企業員工教育訓練之應用。就業與訓練, 13, 44-48。 鄧振源 (2002)。計畫評估:方法與應用。海洋大學運籌規劃與管理研究中心。

基隆市。鄧振源、曾國雄 (1989)。層級分析法 (AHP) 的內涵特性與應用 (上)。中國統計學報, 27 (6), 13707-13724。鄧振源、曾國雄 (1989)。層級分析法 (AHP) 的內涵特性與應用 (下)。中國統計學報, 27 (7), 13767-13870。行政院勞工委員會職業訓練局 (1999)。能力本位訓練美容職類能力目錄。台北市。二、英文文獻 Amit, R., & Schoemaker, P. J. (1993). Strategic Assets and Organizational Rent, *Strategic Management Journal*, 14, 33-46. Asai, K. (1995). Fuzzy System for Management, *ohmsha*, 49-54. Barney, J. (1991). Firm resource and sustained competitive advantage, *Journal of Management*, 17, 99-120. Barton, S. L. (1988). Diversification strategy and systematic risk: Another look, *Academy of Management Journal*, 31, 166-175. Boyatzis, R. E. (1982). The competent manager: A model for effective performance, New York: John Wiley & Sons. Byham, W. C., & Moyer, R. P. (1996). Using competencies to build a successful organization, *Development Dimensions International, Inc.* Chen, Y. W., & Tzeng, G. H. (2001). Using fuzzy integral for evaluation subjectively perceived travel costs in a traffic assignment model, *European Journal of Operational Research*, 130, 653-664. Chen, T. Y., Chang, H. L., & Tzeng, G. H. (2002). Using fuzzy measures and habitual domains to analyze the public attitude and apply to the gas taxi policy, *European Journal of Operational Research*, 137, 145-161. Coombs, R. (1996). Core Competencies and the strategic management of R&D, *R&D Management*, 26(4), 345-355. Derouen, C., & Kleiner, H. (1994). New Developments in Employee Training, *Work Study*, 43(2), 13-16. Dessler, G. (2000). *Human Resource Management*, Englewood Cliffs, NJ: Prentice Hall. Fiol, C. M. (1991). Management Culture as a Competitive Resource: An Identity-Based View of Sustained Competitive Advantage, *Journal of Management*, 17, 191-211. Gomez-Mejia, L. R., Balkin, D. B., & Cardy, R. L. (1998). *Managing Human Resources*, Englewood Cliffs, NJ: Prentice Hall. Grabisch, M. (1996). The application of fuzzy integrals in multicriteria decision making, *European Journal of Operational Research*, 89, 445-456. Grant, R. M. (1991). The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation, *California Management Review*, 33(3), 114-135. Hamel, G., & Prahalad, C. K. (1994). Strategy as a Field of Study: Why Search for a New Paradigm?, *Strategic Management Journal*, 15, 5-16. Hamel, G., & Prahalad, C. K. (1990). The core competence of the corporation. *Harvard Business Review*, 68(3), 79-91. Hofer, C. W., & Schendel, P. (1978). *Strategy Management: a new view of business policy and planning*, Little Brown Co. Ishii, K., & Sugeno, M. (1985). A model of human evaluation process using fuzzy measure, *International Journal of Man-Machine Studies*, 22, 19-38. Javidan, M. (1998). Core competence: What does it mean in practice?, *Long Range Planning*, 31(1), 60-71. Knowles, M. S. (1980). *The modern practice of adult education*, New York: Cambridge, The Adult Education Company. Lee, C., Liu, L. C., & Tzeng, G. H. (2000). Hierarchical fuzzy integral evaluation approach for vocational education performance: case of junior colleges in Taiwan, *International Journal of Fuzzy Systems*, 3(3), 476-485. McClelland, D. C. (1973). Testing for competence rather than for intelligence, *American Psychologist*, 1-24. McLagan, P. A., & Bedrick, D. (1983). Models for excellence: The results of the ASTD training and development competence study, *Training and Development Journal*, 37(6), 10-12. Milkovich, T. G., & Newman, M. J. (1999). *Compensation*, New York: McGraw-Hill. Mirabile, R. J. (1997). Implementation planning: Key to successful competency strategies, *The Human Resources Professional*, 10(4), 19-23. Nadler, L. (1983). *Human Resource Development: The Perspective of Business and Industry* Columbus, OH: The ERIC Clearinghouse on Adult, Career, and Vocational Education. Nadler, L. (1979). *Development Human Resource*, Houston, TX: Gulf Publishing Co. Onisawa, T., Sugeno, M., Nishiwaki, Y., Kawai, H., & Harima, Y. (1986). Fuzzy measure analysis of public attitude towards the use of nuclear energy, *Fuzzy Sets and System*, 20, 259-289. Parry, S. B. (1998). Just what is a competency? *Training*, 35(6), 58-64. Prahalad, C. K., & Hamel, G. (1990). The core competence of the corporation, *Harvard Business Reviews*, May-June: 79-91. Raelin, J. A., & Cooledge, A. S. (1995). From generic to organic competencies, *Human Resource Planning*, 24-33. Rummler, G. A. (1986). *Determining Needs Design and Development*, Englewood Cliffs, NJ: Educational Technology Pub. Spencer, Jr. L. M., & Spencer, S. M. (1993). *Competence at Work*, New York: Wiley. Sugeno, M. (1974). *Theory of fuzzy integrals and its applications*, Dr. Thesis, Tokyo Institute of Technology. Teece, D.J., Pisano, G., & Shuen, A. (1990). Firm capabilities, resources and the concept of strategy, consortium on competitiveness and cooperation working paper, University of California at Berkeley, Center for Research in Management, Berkeley, C.A.. Vargas, L. G. (1990). An Overview of the Analytic Hierarchy Process and its application, *European Journal of Operational Research*, 48, 2-8. Walton, J. (1999). *Strategic Human Resource Development*, Englewood Cliffs, NJ: Prentice Hall.