

以顧客價值觀點建立國際航空公司評選之模式

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摘要

航空業在面對總體經濟環境不利的影響下，燃油成本所佔總營運成本的比例增加，許多公司利用內部改善來控制成本，但是這些作法並無法提供長期的助益，應從顧客導向與需求，來提升企業的競爭能力。

由於因產業別的不同，顧客價值的構面也會有所差異，尤其當乘客搭國際航線時，在客艙裡體驗的時間長，與服務人員的互動也較高，因此，將體驗層面納入考量，以彌補過去對於顧客價值研究之不足。然而為了建構完整之決策模式，本研究回顧相關文獻進行訪談，再運用「方法 - 目的鏈」建立層級間關係；其次，透過詮釋結構模型(Interpretive Structural Modeling; ISM)，來確立準則間之相依關係。第三，運用分析網絡程序法 (Analytic Network Process; ANP)評估屬性權重值，以完整衡量顧客心中整體價值。

最後，本研究以國內三家知名的國際航空公司做為評選方案，結合前述利用ISM與ANP所發展的航空公司之層級架構，做為國際航空公司評選模式；根據究結果顯示，更深入了解乘客偏好的服務屬性。

關鍵詞：顧客價值、詮釋結構模型、分析網絡程序法

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參考文獻

- 一、中文部分簡禎富(2005), 決策分析與管理:全面品質提升支架構與方法, 台北, 雙葉出版社。Airway世界民航雜誌, (2008), 第135期, 18-19。李家豪(2004), 以結構整合觀點探討組織設計模式 - I.S.M.為分析工具, 私立中原大學企業管理研究所未出版之碩士論文, 15-24。林宜萱譯(1990), 策略行銷管理:發揮產品優勢、打入利基市場的高效策略, 台北, 美商麥格羅希爾出版社, 145-146。林羿吟(2005), 溫泉旅館服務品質評估模式之建構, 私立中華大學科技管理研究所未出版之碩士論文, 12-14。徐村和, 張魁?(2007), 顧客價值導向之保養組合商品評選模式:應用模糊分析網絡程序法, 行銷科學學報, 3(2), 113-135。張寧(2008), 以ISM詮釋結構模式法探討直航對高學整體發展影響之策略, 管理學報, 25(6), 635-649。張魁?(2008), 顧客價值導向的產品組合模式, 國立高雄第一科技大學管理研究所未出版之博士論文。張魁?(2009), Super Decisions軟體操作手冊 - 以ANP突破AHP的研究限制, 台北:鼎茂出版社。許格源(2005), 顧客價值觀點分析旅客選擇航空公司之行為, 國立台灣海洋大學航運管理研究所未出版之碩士論文。
- 二、英文部分Bagozzi, R. P., & Dabholkar, P. A. (1994). Consumer recycling goals and their effect on decisions to recycle: A means-end chain analysis. *Psychology and Marketing*, 11(4), 313-340. Berry, L. L., (1986). Retail businesses are service businesses. *Journal of Retailing*, 62(1), 3-6. Butz, H. E., & Goodstein, L. D., (1996). Measuring customer value: Gaining the strategic advantage. *Organizational Dynamics*, 24(3), 63-77. Chandon, P., Wansin, B. & Laurent, G. (2000). A benefit congruency framework of sales promotion effectiveness. *Journal of Marketing*, 64(10), 65-81. Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, 65(2), 81-93. Chipman, S. F., & Brennan, R. L. (Eds.) (1995). *Cognitively diagnostics assessment Hillsdale, New Jersey: Lawrence Erlbaum Associates.* Claeys, C., Swinnen, A. & Abeele, P. V. (1995). Consumers means-end chains for think and feel products. *International Journal of Research in Marketing*, 12(3), 193-208. Fennell, G. G. (1978). Perceptions of the product-in-use situation. *Journal of Marketing*, 42(2), 39-47. Gale, B. T. (1994). *Managing customer value: Creating quality and service that customers can see.* New York: The Free Press. Garvin, D. A. (1983). Spin-offs and the new firm formation process. *California Management Review*, 25(2), 3-20. Gutman, J. (1982). A means-end chain model based on consumer categorization processes. *Journal of Marketing*, 46(2), 60-72. Harker, P. T., & Vargas, L. G. (1990). Reply to remarks on the analytic hierarchy process. *Management Science*, 36(3), 269-273. Holbrook, M. B. (1994). The nature of consumer value, in service quality: New directions in theory and practice. Roland T. Rust and Richard L. Oliver, eds. Newbury Park (pp. 21-71). California: Sage Publications. Holbrook, M. B. (1999). Introduction to consumer value, In Morris B. Holbrook, (Eds.), *Consumer Value: A Framework for Analysis and Research* (pp. 1-28). New York: Routledge. Holbrook, M. B., & Corfman, K. P. (1985). Quality and value in the consumption experience: Phaedrus rides again. *Perceived Quality*, J. Jacoby and J. Olson, (Eds.), Lexington (pp. 31-57). Massachusetts: Lexington Books. Holbrook, M., & Hirschman, E. (1982). The experimental aspects of consumption: Consumer fantasies, feelings and fun. *Journal of Consumer Research*, 9(2), 132-140. Horng, S. C., & Lin, L. H. (1994). A dynamic consumer product classification perspective. *Journal of Management Studies*, 11(1), 25-47. Hsieh, L. F., Lin, Y. Y., Wang, L. H., & Lin, L. H. (2005). A service quality evaluation model for hot spring hotels in Taiwan. The XV ACME International Conference, 338-343. Kahraman, C., Ertay, T., & Buyukozkan, G. (2006). A fuzzy optimization model for QFD planning process using analytic network approach. *European Journal of Operational Research*, 171(2), 390-411. Keller, K. L. (2003). Brand synthesis: The multidimensionality of brand knowledge. *Journal of Consumer Research*, 29(4), 595-600. Kotler, P. (1994). *Marketing management: Analysis, planning, implementation, and control* (8th ed.). New Jersey: Prentice-Hall. Kwong, C. K. & Bai, H. (2003). Determining the importance weights for the customer requirements in QFD using a fuzzy AHP with an extent analysis approach. *IIE Transactions*, 35(7), 619-626. Leung, L. C., Lam, K. C. & Cao, D. (2006). Implementing the balanced scorecard using the analytic hierarchy process and the analytic network process. *Journal of the Operational Research Society*, 57(6), 682-691. Lievens, F. & Highhouse, S. (2003). The relation of instrumental and symbolic attributes to a company's attractiveness as an employer. *Personnel Psychology*, 56(1), 75-102. Meade, L. M. & Sarkis, J. (1999). Analyzing organizational project alternatives for agile manufacturing processes: An analytical network approach. *International Journal of Production Research*, 37(2), 241-261. Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(4), 41-50. Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Marketing*, 64(1), 13-33. Park, C. W., Jaworski, B. J., & MacInnis, D. J. (1986). Strategic brand concept image management. *Journal of Marketing*, 50(4), 135-145. Park, J. W. (2007). Passenger perceptions of service quality: Korean and Australian case studies. *Journal of Air*

Transport Management, 13(4), 238-242. Patterson, P. G., & Spreng, R. A. (1997). Modeling the relationship between perceived value, satisfaction, and repurchase intentions in a business-to-business, service context: An empirical examination, *International Journal of Service Industry Management*, 8(5), 414-434. Pieters, R., Baumgartner, H., & Allen, D. (1995). A means-end chain approach to consumer goal structures. *International Journal of Research in Marketing*, 12(3), 227-244. Rhoades, D. L., & Waguespack, B. Jr. (1999). Better safe than service: The relationship between service and safety quality in the US airline industry. *Managing Service Quality*, 9(6), 396-400. Saaty, T. L. (1996). Decision making with dependence and feedback: the analytic network process. Pittsburgh, Pennsylvania: RWS Publications. Saaty, T. L. (2005). Theory and applications of the analytic network process: Decision making with benefits opportunities, cost, and risks. Pittsburgh, Pennsylvania: RWS Publications. Smith, J. B., & Colgate, M. (1994). Customer value creation: A practical framework. *Journal of Marketing Theory and Practice*, 15(1), 7-23. Tatsuoka, K. K. (1995). Architecture of knowledge structures and cognitive diagnosis: A statistical pattern recognition and classification approach, (Eds.), *Cognitive diagnostics assessment* (pp. 327-359). New Jersey: Lawrence Erlbaum Associates. Vaughn, R. (1980). How advertising work: A planning model. *Journal of Advertising Research*, 20(5), 27-33. Warfield, J. N. (1973). Binary matrices in system modeling. *IEEE Transactions on System, Man and Cybernetics*, 3(5), 441-449. Warfield, J. N. (1974). Toward interpretation of complex structural models. *IEEE Transactions on System, Man and Cybernetics*, 4(5), 405-416. Whitaker, J., Terzis, B., Soong, G. E., & Yeh, W. (2005). Stated preference as a tool to evaluate airline passenger preferences and priorities. *Journal of the Transportation Research Board*, 1915, 55-61. Woodruff, R. B. (1997). Customer value: The next source of competitive advantage. *Journal of the Academy of Marketing Science*, 25(2), 139-153. Wu, W. W., & Lee, Y. T. (2007). Selecting knowledge management strategies by using the analytic network process. *Expert Systems with Applications*, 32(3), 841-847. Zeithaml, V. (1987). Defining and relating price, perceived quality, and perceived value (pp. 87-101). Cambridge, Massachusetts: Marketing Science Institute. Zeithaml, V. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2-22.