The Impact of Consultant Service, Information Department Service and Top Manager Support on ERP 's Performance through V

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ABSTRACT

The world-wide competitions has been coming changeful and intensive in today 's environment, the enterprises have been drawning the best effort in every possibility to increase their competitive abilities. By implementing Enterprise Resource Planning (ERP) as well as executing flexibility have been playing an important role for enterprises to achieve this purpose. However, the actual benefits of implementing ERP into enterprises are debatable. In many cases, an ineffective application of ERP have incurred huge losses for companies and even driven some to bankruptcy. The effect of ERP implementation will be affected by many factors. The aim of this research is to examine the effects that the service quality of information department and consulting service as well as the support of top management have on the effectiveness of a corporation that are implementing ERP. To study whether the users ' satisfaction and organization effects will be affected by different strategy ERP implementation. Enterprises that have implemented ERP are our primary research participants. In our study, there are 154 research samples had been received by either a manager of the information department or a consultant that had the experience of implementing ERP. The results of our surveys point to the following: the service quality of either the information department or consulting firms not only influences the integration process of ERP, but is also a major factor that affects employee resistance and the effectiveness of ERP. In order to successfully in ERP implementation, excellent service of consultor, professional knowledge and good service attitude of information department are the key points for decreasing employnees 'resistance. In the meantime, the support from top manager will leading to a better service quality. Those are the important factors to achieve in superior effects of ERP implmention. When comparing impletemented strategy, a big-bang ERP implementation is more effective for enterprises that are with less flexibility in their organization structure, while a step-by step ERP implemention is better suited for the companies that are with a complex structure also it 's departments are more independent.

Keywords: ERP、impletementation strategy、consulting service、employee resistance

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REFERENCES

一、中文部份 王昭雄(1998),資訊管理對企業競爭力影響之構面探討,和春學報,5,73-80。 王新雨(1999),ERP導入的挑戰與考量,能力雜誌,521,102-105。 皮世明,許通安,范錚強(2001),影響資訊系統服務品質的因素研究,資訊管理研究,3(1),1-24。 吳瑞堯,李坤清,張達仁(2008),企業資源規劃系統導入對資訊部門組織氣候及工作滿意度之影響,電子商務研究,6(2),229-248。 林東清(1997),我國資訊部門的角色扮演之分析,中華民國資訊經理人協會會務通訊,38,42-46。 柯貞伊(2005),探討醫院品質指標資訊系統導入之研

究,國立中正大學資訊管理研究所未出版之碩士論文。 美商甲骨文(2000), ERP未來大趨勢,資訊與電腦, 245, 20-23。 楊千(2006)台灣大型資訊系統導入與應用對企業經營策略與流程影響之研究(III), 行政院國家科學委員會專題研究計畫(國科會

, No.NSC95-2416-H009-001), 台北:行政院國家科學委員會。 郭倉義(1998), 淺論企業資源管理軟體,中華管理評論, 1(2), 1-5。 張文 玲(2007), ERP與電子流程管理系統整合關鍵因素之研究, 私立靜宜大學資訊管理研究所未出版之碩士論文。 張柏齡(2002), ERP 顧問 公司評估法,資訊與電腦, 259, 50-53。 張緯良, 李凌楓, 葉???2004), 企業特性與企業資源規劃系統(ERP)配合之研究, 電子商務學報 ,6(1),101-116。 莊煥銘,尤國任,張寶升(2005),台灣地區製造業之經營策略、企業資源規劃與組織績效實證研究,國立空中大學管 理與資訊學系管理與資訊學報,10,297-328。 黃采娟(2006),以整合性觀點建構資訊部門功能定位理論模型之研究,國立台灣大學資訊 管理研究所未出版之碩士論文。 蔡麗紅(2008),從組織適配性探討ERP導入成功的關鍵因素,私立大同大學資訊經營研究所未出版之碩 士論文。 劉鳳如(1999),企業導入企業資源規劃(ERP)套裝軟體的策略性目標與重要關鍵因素關係之研究,國立台灣大學商學研究所未出 版之碩士論文。 歐世瑜(2007),資訊部門推行全面品質管理之探討 - 以某汽車公司為例,國立中山大學資訊管理所未出版之碩士論文。 二、英文部份 Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective continuance, and normative commitment to the organization. Journal of Occupational and Organization Psychology, 63(1), 1-18. Amoako-Gyampah, K., & Salam, A. F. (2004). An extension of the technology acceptance model in an ERP implementation environment. Information and Management, 41(6), 731-745. Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: a review and recommended Two-Step approach. Psychological Bulletin, 103(3), 411-423. Bagozzi, R. P. (1993). Assessing construct validity in personality research: Applications to measures of self-esteem. Journal of Research in Personality, 27, 49-87. Bailey, J. E., & Pearson, S. W. (1983). Development of a tool for measuring and analyzing computer user satisfaction. Management Science, 29(5), 530-545. Bakos, Y. (1996). Information technology spending and economic productivity: a review of the trouble with computers by Thomas K. Landauer.

[Online]. Available: http://pages.stern.nyu.edu/~ bakos/landauer.pdf [2010, March 6]. Baroudi, J. J., & Orlikowski, W. J. (1988). A short-form measure of user information satisfaction: a psychometric evaluation and note on use. Journal of Measurement Information Systems, 4(4), 44-59. Bashein, B. J., Markus, M., & Riley, P. (1994). Preconditions for BPR success and how to prevent failures. Information System Management, 13(1), 7-13. Basil, P., Yen, D. C., & Tang, H. L. (1998). Information consulting: developments, trends and suggestions for growth. International Journal of Information Management, 17(5), 303-323. Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness-of-fit in the analysis of covariance structures. Psychological Bulletin, 88(3), 588-600. Bjoern, N., Karsten, K., & Joerg, B. (2006). Govefnance theory perspectives on IT consulting projects: the case of ERP implementation. e-Service Journal, 5(1), 5-26. Bharadwaj, A. S. (2000). A resource-based perspective on information technology capability and firm performance: an empirical investigation. MIS Quarterly, 24(1), 169-196 Bhattacherjee, A. (2001). understanding information systems continuance: an expectation-confirmation model. MIS Quarterly, 25(3), 351-370. Bradford, M., & Florin, J. (2003). Examining the role of innovation diffusion factors on the implementation success of enterprise resource planning systems. International Journal of Accounting Information Systems, 4(3), 205-225. Buchanan, B. (1974). Building organizational commitment: the socialization of managers in work organization. Administrative Science Quarterly, 19(4), 533-546. Calisir, F. (2004). The relation of interface usability characteristics, perceived usefulness, and perceived ease of use to end-user satisfaction with enterprise resource planning (ERP) systems. Computers in Human Behavior, 20(4), 505-515. Cameron, D. P., & Meyer, L. S. (1998). Rapid ERP implementation-a contradiction. Management Accounting, 80(6), 55-60. Chan, J. O. (2005). Enterprise information systems strategy and planning. The Journal of American Academy of Business. 6(2), 148-153. Cole-Gomoiski, B. (1998). Enterprise resource planning: systems development: problem: systems management. Computer world, 32(38), 1-10, Covin, T. J., & Fisher, T. V. (1991). Consultant and client must work together. Journal of Management Consulting, 6(4), 11-19. Davenport, T. H. (1998). Putting the enterprise into the enterprise System. Harvard Business Review, 4(76), 121-131. Davide, A., Riccardo, D., & Valeria, M. V. (2007). Risk management in ERP project introduction: Review of the literature. Information and Management archive, 44(6), 547-567. Davis, G. B., & Olson, M. H. (1985). Management information system: Conceptual foundations, structure, and development (2nd ed.). NewYork: McGraw-Hill. Davis, G. B., & Wilder, C. (1998). False starts, strong finishes companies are saving troubled IT projects by admitting their mistakes, stepping back, scaling back, and moving on. Information Week, 30(711), 41-43. Debrabander, B., & Edstrom, A. (1977). Successful information system development projects. Management Science, 24(2), 191-199. Dess, G. G., & Robinson, R. B. (1984). Measuring organizational performance in the absence of objective measures: the case of the privately-held firm and conglomerate business unit. Strategic Management Journal, 5(3), 365-273. Dickson, G. W., & Wetherbe, J. (1985). The Management of Information Systems. NewYork: McGraw-Hill. Doll, W. J., & Torkzadeh, G. (1988). The measurement of end-user computing satisfaction. MIS Quarterly, 12(2), 259-274. Edward, E. (2005). Creating high performance organizations. Asia Pacific Journal of Human Resources, 43(1), 10-17. Elisabeth, J. U., Ronald, R. H., & Umble, M. M. (2003). Enterprise resource planning: Implementation procedures and critical success factors. European Journal of Operational Research, 146(2), 241-257. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservables and measurement error. Journal of Marketing Research, 18(1), 39-50. Gelderman, M. (1997). The relation between user satisfaction, usage of information systems and performance. Information and Management, 34(1), 11-18. Genoulaz, V. B., & Millet, P. A. (2006). An investigation into the use of ERP systems in the service sector. International Journal of Production Economics, 99(1/2), 202-221. Gray, P., & Watson, H. J. (1998). Present and future directions in data warehousing. The Data Base for Advances in Information Systems, 29(3), 83-90. Greiner, L. E., & Metzger, R. O. (1983). Consulting to management. Englewood Cliffs, New Jersey: Prentice-Hall. Gupta, Y. P., Sundararaghavan, P. S., & Raghanathan, T. S. (1989). Assessing the impact of IS executive 's critical success factors on the performance of IS organization. Information and Management, 17(3), 157-168. Guimaraes, T., & Gupta, Y. (1988). Measuring top

management satisfaction with the MIS department. Omega International Journal of a Management Science, 16(1), 17-24. Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). Multivariate data analysis (5th ed.). Upper Saddle River, New Jersey: Prentice-Hall. Hamilton, S., & Chervany, N. L. (1981). Evaluating information system effectiveness-part II: Comparing evaluator viewpoints. MIS Quarterly, 5(3), 55-69. Henry, A. (1999). Seven key element of a successful implementation, and eight mistakes you will make anyway. Hospital Materiel Management Quarterly, 21(2), 76-82. Holland, P., & Light, B. (1999). A critical success factors model for ERP implementation. IEEE Software, 16(3), 30-36. Ifinedo, P. (2006). Extending the gable et al. Enterprise systems success measurement model: a preliminary study. Journal of Information Technology Management, 17(1), 14-33. Ives, B., & Learmonth, G. P. (1984). The information system as a competitive weapon. Communications of the ACM, 27(12), 1193-1201. Jang, Y., & Lee, J. (1998). Factors influencing the success of management consulting projects. International Journal of Project Management, 16(2), 67-72. Karimi, J., Gupta, Y. P., & Somers, T. M. (1996). Impact of competitive strategy and information technology maturity on firm's strategic response to globalization. Journal of Management Information System, 12(4), 55-88. King, W. R., & Thompson, S. H. (1996). Key dimensions of facilitators and inhibitors for the strategic use of information technology. Journal of Management Information Systems. Armonk, 12(4), 35-53. Khan, E. H. (1991). Organization and management of information systems Functions: comparative study of selected organizations in bahrain. Information and Management, 21(2), 73-85. Khan, E. H. (1992). The stages of evolution of information system functions: Findings in the bahrain environment. IEEE Transaction on Engineering Management, 39(1), 84-95. Kotter, J. P., & Schlesinger, L. A. (1979). Choosing strategies for change. Harvard Business Review, 57, 106-114. Kumar, K., & Hillegersberg, J. (2000). ERP experiences and evolution. Communications of the ACM, 43(4), 23-26. Lacity, M., & Willcocks, L. (1998). An empirical investigation of information technology sourcing practices: Lessons from experience. MIS Quarterly, 22(3), 363-408. Lapierre, J. (1998). The core of corporate image in the evaluation of business-to-business professional services: The case of consulting engineering. Journal of Professional Service Marketing, 16(1), 21-41. Lapierre, J., Filiatrault, P., & Chebat, J. (1999). Value strategy rather than quality strategy: A case of business-to-business professional services. Journal of Business Research, 45(2), 235-246. Laughlin, S. (1999). An ERP game plan. The Journal of Business Strategy, 20(1), 32-37. Lee, D. M. S., Trauth, E. M., & Farewell, D. (1995). Critical skills and knowledge requirements of IS professionals: A joint academic/industry investigation. MIS Quarterly, 19(3), 313-340. Lee, J., & Sang-hoon, K. (1992). The relationship between procedural formalization in MIS development and MIS success. Information and Management, 22(2), 89-111. Lee, Y. W., Strong, D. M., Kahn, B. K., & Wang, R. Y. (2002). AIMQ: A methodology for information quality assessment. Information and Management, 40(2), 133-146. Lederer, A. L., & Mendelow, A. L. (1988). Convincing top management of the strategic potential of information system. MIS Quarterly, 12(4), 525-534. Leder, A. L., & Mendelow, A. L. (1986). Issues in information systems planning. Information and Management, 10(5), 245-254. Lilley, V. (2004). How to profit from your IS strategy. Specialty Chemicals, 24(3), 36-37. Linthicum, D. S. (1998). Enterprise application integration. Reading, Massachusetts: Addison Wesley Longman. Locke, E. A., & Latham, G. P. (1990). A theory of goal setting and task performance. Englewood Cliffs, New Jersey: Prentice-Hall. Loizos, C. (1998). ERP: is it the ultimate software solution. Industry Week, 247(16), 33-48. Lucas, H. C. (1984). Organizational power and the information services department. Communications of the ACM, 27(1), 58-65. Mak, B. L., & Hy, S. (2001). A confirmatory factor analysis of IS employee motivation and retention. Information and Management, 38(5), 265-276. Markus, M. L. (1983). Power, politics, and MIS implementation. Communications of the ACM, 26(6), 430-444. Martin, M. (1998). Enterprise resource planning. Fortune, 137(2), 149-51. Martin, M. (1998). An ERP strategy. Fortune, 2(1), 95-97. McFarlan, F., & Nolan, R. (1995), How to manage an IT outsourcing alliance, Sloan Management Review, 36(2) 9-23. Magal, S. R. (1991), A model for evaluating information center success. Journal of Management Information Systems, 8(1), 91-106. Mockler, R. J. (1991). The intelligent enterprise and the changing role of computer information systems in strategic planning. Information Resources Management Journal, 4(1), 21-28. Nelson, R. R., Todd, P. A. & Wixom, B. H. (2005) Antecedents of information and system quality: An empirical examination within the context of data warehousing. Journal of Management Information Systems, 21(4), 199-235. Nunnally, J. C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill. Olson, M. H., & Chervany, N. L. (1980). The relationship between organizational characteristics and the structure of the information services function. MIS Quarterly, 4(2), 57-68. Olson, D. L. (2004). Managerial issues of enterprise resource planning system. New York: McGraw-Hill. Omar, M. H., & Lascu, D. N. (1993). Development of a user information satisfaction scale: An alternative measure with wide applicability. Journal of information Technology Management, 4(2), 1-13. Ortiz-de, G. A., Kelly, H., & Hunter, M. G. (2005). Information systems effectiveness in small businesses: extending a singaporean model in canada. Journal of Global Information Management, 13(3), 55-80. Parr, A., & Shanks, G. (2000). A model of ERP project implementation. Journal of information Technology, 15(4), 289-303. Pelham, A. M. (2000). Market orientation and other potential influences on performance in small and medium-sized manufacturing firms. Journal of Small Business Management, 38(1), 48-67. Pitt, L. F., Watson, R. T., & Kavan, C. B. (1995). Service quality: A measure of information systems effectiveness. MIS Quarterly, 19(2), 173-187. Porter, L. W., Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). organization commitment, job satisfaction, and turnover among psychiatric technicians. Journal of Applied Psychology, 59(5), 603-609. Powell, T. C., & Dent-Micallef, A. (1997). Information technology as competitive advantage: The role of human, business and technology resource. Strategic Management Journal, 18(5), 375-405. Rafig, M., & Ahmed, P. K. (2000). Advances in the internal marketing concept:definition, synthesis and extension. Journal of service marketing, 14(6), 449-462. Ross, J. W., Beath, C. M., & Goodhue, D. L. (1996). Develop long-term competitiveness through IT assets. Sloan Management Review, 38(1), 31-42. Ruekert, R. W., Walker, O. C., & Roering, K. J. (1985). The organization of marketing activities: A contingency theory of structure and performance. Journal of Marketing, 49(1), 13-25. Saarinen, T. (1996). An expanded instrument for evaluating information system success. Information and Management, 31 (2), 103-118. Sam, W. B., & Joseph, W. W. (1986). Handbook of management consulting services. New York:

McGraw-Hill. Sanders, G. L., & Courtney, J. F. (1985). A field study of organizational factors influencing DSS success. MIS Quarterly, 9(1), 77-93. Sarah, H., & Tricia, V. (2005). Determining the impact of an organization 's performance management system. Asia Pacific Journal of Human Resources, 43(1), 76-97. Saunders, C. S., & Jones, J. W. (1992). Measuring performance of the information systems function. Journal of Management Information Systems, 8(4), 63-82. Segars, A. H., & Grover, V. (1998). Strategic information systems planning: planning system dimensions, internal coalignment, and implications for planning effectiveness. Decision Sciences, 29(2), 303-345. Segars, A. H., & Grover, V. (1993). Re-examining perceived ease of useand usefulness: a confirmatory factor analysis. MIS Quarterly, 17(4), 17-25. Sethi, V., & King, W. R. (1994). Information technology application provides competitive advantage. Management Science, 40(12), 1601-1627. Shafer, S. M., & Byrd, T. A. (2000). A framework for measuring the efficiency of organizational investments in information technology using data envelopment analysis. Omega International Journal of a Management Science, 28(2), 125-141. Smith, M., Mit, S., & Narasimhan, S. (1998). Information systems outsourcing: A study of pre-event firm characteristics. Journal of Management Information Systems, 15(2), 61-93. Smith, H. A., McKeen, J. D., & Staples, D. S. (2001). Risk management in information systems problems and potential. Communications of the Association for Information System, 7(13), 1-29. Summer, M. (2005). Enterprise resource planning. Upper Saddle River, New Jersey: Prentice-Hall. Tepper, B. J., Eisenbach, R. J., Krby, S. L., & Potter, P. W. (1998). Test of a justice-based model of ubordinates resistance to downward influence attempts. Group and Organization Management, 23, 144-160. Tu, Q., Vonderembse, M. A., & Ragu-Nathan, T. S. (2001). The impact of time-based manufacturing practices on mass customization and value to customer. Journal of Operations Management, 19(2), 201-217. Umble, E. J., Haft, P. R., & Umble, M. M. (2003). Enterprise resource planning: Implementation procedures and critical success factors. European Journal of Operational Research, 146(2), 241-257. Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance on strategy research: A comparison of approaches. Academy of Management Review, 11(4), 801-814. Vincent, C. (2007). A Study of the impact of organizational learning on information system effectiveness. International Journal of Business and Information, 2(1), 127-158. Wang, E. T. G., & Chen, J. H. F. (2006). Effects of internal support and consultant quality on the consulting process and ERP system quality. Decision Support Systems, 42(2), 1029-1041. Weiner, E. (1982). New directions for transportation policy. Journal of the American Planning Association, 48(3), 293-300. Welti, N. (1999). Successful SAP R/3 implementation: practical management of ERP project. Reading, Massachusetts: Addison-Wesley Longman. Wiener, Y. (1982). Commitment in organizations: a normative view. Academy of Management Review, 7(3), 418-428. Willoughby, T. C., & Pye, R. A. (1977). Top management 's computer role. Journal of Systems Management, 28(9), 10-13. Wixom, B. H., & Watson, H. J. (2000). An empirical investigation of the factors affecting data warehousing success. MIS quarterly, 25(1), 17-41. Zahra, S. A., & Covin, J. G. (1993). Business strategy, technology policy and firm performance. Strategic Management Journal, 14(6), 451-478.