The Development of Productivity Management and Decision Support Model for Service Systems

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ABSTRACT

ABSTRACT Due to the increase of the internal and the external competition pressure, labor shortage, increasing laborage and the deterioration of the internal investment environments, efficient use and effective allocation of resources become important issues for the management of service industry. Productivity is a proper and popular criterion to measure the efficiency and the effectiveness of service system performance. This research emphasizes on unit level productivity in order to develop a productivity management, and decision support model for service systems. Three productivity indices are presented for service system productivity measurement and evaluation through the definition of input and output factors. According to the productivity management model being developed, several issues related to service decisions are addressed, such as manpower control decision, capital investment decision and operational strategy decision, in order to develope decision support model for service systems. Through the decision support functions, managers can analyze service decisions from productivity point of view; therefore, enhance the quality of service decisions. Finally, a case study is adopted for illustrating and validating the performance of the productivity management model as well as the service decision support model being developed. Keywords: Service Systems; Productivity Management; Decision Support Model.

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REFERENCES

1.王國明、顧志遠,1990,生產力管理模式之驗證研究,國科會。 2.余朝權,1984,企業生產力衡量與分析之研究,政治大學企業管理 研究所博士論文。 3.杜順榮,1994,以系統評估模式選擇生產力改善技術之研究,交通大學工業工程研究所碩士論文。 4.林英峰,1988 ,服務業作業系統之設計,服務業研討會論文集,中華民國管理科學學會,pp.4-1-4-17。 5.邱江明,1984,企業生產力衡量,分析與增 進實務,中華徵信所。 6.吳嘉寧,1996,以生產力為指標之製造決策支援系統,大葉工學院工業研究所碩士論文。 7.吳靄書,1976,企 業人事管理 - 附個案研究 , 大中國圖書公司。 8.徐風和 , 1984 , 八十年代是生產力的時代演講稿。 9.梁定澎 , 1991 , 決策支援系統 , 松 崗圖書公司。 10.郭坦著,1982,勞務的市場學,銘傳學報十九期。 11.郭煌常、杜紫宸,1987,管理資訊系統-概念基礎、結構與發展 ,儒林。 12.陳禹辰、歐陽崇榮,1987,決策支援與專家系統,全華圖書公司。 13.曾新闖,經營館哩,將門出版社,226頁。 14.楊國安 、何永福,1993,人力資源策略管理,三民書局。 15.趙浡霖,1990,作業研究,科技圖書。 16.許慶萍、楊秋月,1991,經營計畫與分 析,小知堂出版。 17.劉浚明,1995,數學規劃 - 理論與實務,華泰書局。 18.賴士葆,余朝權, 1 9 8 6 ,生產力之衡量與應用,台 北:中國生產力中心 19.Bush,P.S.and Houston,M.J.,1985,Marketing:Strategic Foundations,(Homewood,Illinois:Irwin,Inc.),P.850 20. Davis, G.B., 1982, Management Information System Conseptual Foundation, Structure and Development, John Wiley & Sons, Inc.

- 21. Encyclopaedia Britanica, Inc., 1977, Encyclopaedia Britanica, 15th. 22. Fabricant, S., 1969, A primer on productivity, Random House, p.3
- 23. Gintzberg, M.J. and Stohr, E.A., 1981, Decision Support Systems: Issues and Perpectives, Proc. of the NYU Symposium on Decision Support

Systems, New York, 21-22 May. 24. House, W.C., 1983, Decision Support Systems, Petrocelli Books, Inc. 25. Jackson, J. H. and Musselman, V.A., 1987, Business: Contemporary Concepts and Practices, NJ: Prentice-Hall, Inc. 26. Keen, G.W. and Scott, M.S., 1985, Decision Support Systems: An Organizational Perspective, John Wiley & Sons, Inc. 27. Kendrick, J.W. and Creamer, D., 1965, Measuring Company Productivity: Handbook with Case Studies, Studies in Business Economics, 89, National Industrial Conference Board, New York. 28. Kolter, 1991, Marketing Management: Analysis, Planning, Implementation, and Control (7th ed.), NJ: Prentice-Hall International, Inc. 29.Liu, S.Y. and Chen, J.G., 1992, A Computer Assisted Systems for Productivity Management, Computers in Industry, Vol. 19, pp. 271-279 30.Lovelock, C.H., 1981, Why Marketing Management Need to be Different for Servicemin J.H. Donnelly and William R. Georege, Marketing of Service, Chicago: American Marketing Association 31. McCosh, A.M. and Morton, M.S., 1978, Management Decision Support System, John Wiley & Sons, Inc. 32. Scott, M.S., 1971, Management Decision Systems: Computer Based Support for Decision Making, Division of Research, Ilarvard University, Cambridge, Mass 33. Silver, M.S., 1991, System that Support Decision Makes Description and Analysis, John Wiley & Sons, Inc. 34.Sink, D.S., 1988, Productivity Management: Planning, Measurement, Evaluation, Control and Improvement, New York: John Wiley & Sons, Inc. 35.Sprague, R.H. and Carlson, E.D., 1983, Building Effective Decision Support Systems, John Wiley & Sons, Inc. 36.Sprague, R.H. and Watson, H.J., 1986, Decision Support System: Putting Theory into Practice, New York: Prentice-Hill. 37. Stanton, W.J., 1978, Fundamental of Marketing,5th.ed,July,p.482 38.Sumanth,D.J.,1985,Productivity engineering and management,1st printing,New York:McGraw-Hill book Company 39.Sumanth ,D.J.,1986,A Micro Computer Decision Support System for the Total-Productivity Model, Computers and Industrial Enginerring, Vol.11, Nos.1-4,pp.32-35 40. Sumanth, D.J. and Mehmet, D., 1987, Application of Expert Systems to Productivity Measurement in Companies/Organizations, Computers and Industrial Engineering, Vol. 13, Nos. 1-4, pp. 21-25