

# The Study on Supply Management Performance of Military Principal Items - from Supply Chain Management Viewpoints

王正、陳欽雨

E-mail: 9500902@mail.dyu.edu.tw

## ABSTRACT

In contrast to customer-oriented supply chain management, the principal items of military supply management is to support the activities of military missions. However, there content of logistic service is rather consistent since both them try to provide the optimal level of the service leading to customer 's satisfaction. In fact, the supply performance of military principal items may directly affect the development of tangible martial power. Hence, there is a need to build the feasible systems and indicators to evaluate the supply management and to investigate the efficiency and effectiveness of the defensive resources utilization. The current study refers to the viewpoints of supply chain management, integrates the martial logistic policy, principal items ' managerial requisition, and uses supply performance criteria given in literature. The Delphi method is in use to collect the data and build the framework for evaluating the supply management performance. The dimensions, indicators, and their relative weights are determined using the analytic hierarchical process. The results indicate that four dimensions, i.e., quality, time, flexibility, and cost, of evaluation framework are developed, where the dimensions of quality and time seem to be more importance than the other two dimensions, since they have higher values of weighting. It also implies that to fulfill the objective of military logistic, the authority of supply management needs to develop an integrated performance appraisal system which must cover the levels of supervision, control, and operation, so as to reinforce the horizontal and vertical operations in a way of coordination and consistence, and to promote the effectiveness and accuracy of the holistic supply and supporting military activities. The study developed an evaluation framework which includes a lot of just and objective criteria, and it can serve as reference tool, for conducting performance assessment and manpower planning. Key words: principal items, supply chain management, performance evaluation.

Keywords : principal items ; supply chain management ; performance evaluation

## 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	vii	圖目錄	x	表目錄	xi	第一章 緒論	1.1.1																																																							
研究背景	1	1.2研究動機	3	1.3研究重要性	5	1.4研究目的	7	1.5論文架構與流程	8	1.6研究範圍與限制	10	第二章 文獻探討	12	2.1供應鏈管理意涵	12	2.1.1供應鏈管理系統	15	2.1.2供應鏈作又參考模式	18	2.1.3小結	20	2.2國軍主件裝備補給管理	23	2.2.1主件裝備補給管理架構	24	2.2.2主件裝備補給管理實務	31	2.3績效評估理論	41	2.3.1績效評估的意義及範疇	42	2.3.2績效評估指標的建立原則	44	2.3.3績效評估之方法	46	2.4主件裝備補給管理績效衡量準據	50	第三章 研究方法	58	3.1研究架構	58	3.2研究方法及步驟	59	3.3問卷設計流程	69	3.4國軍主件裝備管理領域專家遴選	71	3.5評估指標之發展	73	第四章 研究結果與討論	80	4.1績效評估指標分析結果	80	4.1.1 主件補給管理績效評估指標之決定	80	4.1.2 主件補給管理績效評估指標權重	82	4.2國軍主件補給管理績效指標權重實例檢視	88	4.3討論	90	第五章 結論與建議	95	5.1研究總結	95	5.2建議事項	97	5.3後續研究	98	參考文獻	100	附錄	106

## REFERENCES

- 1.王卓, 1995, 現代美軍後勤, 初版, 台北:國防大學。
- 2.王立志, 2000, 系統運籌與供應鏈管理, 初版, 台中:滄海。
- 3.王正, 2003, 由供應鏈管理看軍品主件補給作業, 軍品科技新知期刊, 第122期, 頁76-90。
- 4.石正平, 2004, 供應鏈管理實務、關鍵因素之分析及其與績效間關係之探討 - 以鋼鐵製造公司實証研究, 高雄:中山大學企業管理研究所碩士論文, 2004年5月。
- 5.朱艷芳, 1998, 迎接新一代兵力成軍的現代化後勤管理作為, 國防雜誌, 第14卷, 第4期。
- 6.李書行, 1995, 過程結果並重, 個人群體兼顧 - 務實創新的策略性績效評估, 會計研究月刊, 第113期, 頁15-23。
- 7.李昭賢, 1998, 供應鏈管理分析模式之研究, 台中:中興大學企業管理研究所出版碩士論文。
- 8.李長貴, 1998, 績效管理與績效評估, 初版, 台北:華泰。
- 9.李得銓, 2004, 供應鏈管理績效指標 - 以電子業為例, 台中:逢甲大學工業工程研究所碩士論文, 2004年6月。
- 10.李健源, 2004, 企業流程內在績效評估指標建立之研究 - 以系統科學理論為探討, 桃園:中原大學企業管理研究所碩士論文, 2004年7月。
- 11.林勇、陳志祥, 2000, 供應鏈管理, 初版, 北京:機械工業出版社。
- 12.周建維, 2003, 企業供應鏈流程即時性績效管理之研究, 台南:成功大學企業管理研究所碩士論文, 2003年6月。
- 13.郭修暉, 2000, 拉式供應鏈 (s, Q) 存貨政策管理之探討, 台中:逢甲大學工業工程研究所碩士論文, 2000年6月。
- 14.陳家祥, 1999, 台灣零售通路供供應鏈管理應用特性與展望, 國際物流研討會論文集, 頁144-151。
- 15.陳佳鳳, 1999, 銀行業策略性績效指標之研究, 台灣大學會計學研

究所碩士論文，1999年6月。 16.陳麗玉，1999，全球化供應鏈管理績效評估探討，台北:政治大學資訊管理研究所碩士論文，1999年6月。

17.陳昱欣、陳穆臻，2001，台灣產業因應供應鏈管理與全球運籌現況之對策，科技與管理學術研討會論文集，頁46-54。 18.翁崇雄，1998，期望服務與服務績效影響服務品質衡量之研究，台大管理論叢，9(1)，頁153-176。 19.國防部聯合後勤司令部，1998，聯合勤務要綱，國軍準則，第3篇。 20.國防部聯合後勤司令部，2004，國軍通用主件補給作業手冊，國軍準則，頁1。 21.國防部軍備局，2004，「國軍軍備機制發展現況」簡報。 22.曾國雄、鄧國源，1989，層級分析法(AHP)的內涵特性與應用(上)，中國統計學報，第27卷，第6期。 23.黃銀康，2001，全球運籌之配銷網路與存貨策略探討 - 以工業電腦為例，桃園:元智大學工業工程研究所碩士論文，2001年6月。 24.黃靜蓮，2000，供應鏈管理模式與快速回應技術建立之研究，台北:淡江大學企業管理研究所碩士論文，2000年6月。 25.謝玲芬，2000，多目標(多準則)評估技術之探討及其在組織績效評估之應用，新竹:清華大學工業工程研究所碩士論文，2000年6月。 26.譚海林，2004，以供應鏈整合建構艦船全壽期後勤支援，台北:國防管理學院國防管理戰略班畢業論文，2004年6月。 27.藍仁昌，1999，從物流的角度建制供應鏈管理，資訊與電腦，第229期，頁73-78。

二、英文部分 1.Aitken, J. M., 1999.Supplier Associations, a Methodological Opportunity in Supply Chain Research.8 International Annual IPSERA Conference, Belfast and Dublin, pp.13-22. 2.Billington C., 1992.Managing Supply Chain Inventory: Pitfall and Opportunity, Sloan Management Review, pp.65-73. 3.Bloomberg D. J., Lemay S., & Hanna J. B., 2002.Logistics, Prentice Hall, 4.Bolton, Ruth N., & James H. Drew, 1991.A Multistage Model of Customers' Assessments of Service Quality and Value, Journal of Consumer Research, Vol.17, pp.375-384. 5.Charnes, A., Cooper W.W., & Rhodes E., 1978.Measuring the efficiency of decision making units, European Journal of Operational Research Vol.2, pp.429-444. 6.Christopher, M., 1992.Logistics and Supply Chain Management: Strategies for Reducing Costs and Improving Services, Pitman, London. 7.Chopra, S. & Meindl, P., 2001.Supply Chain Management: Strategy, Planning, Operation, 1st ed., N.J.: Prentice Hall. 8.Cooper, M. C., Lambert, D. M. & Pagh, J. D., 1998.Supply Chain Management: Implementation Issues & Research Opportunities, The International Journal of Logistics Management, 9(2), pp.1-19. 9.Christian, B., & Jayanth, J., 1997.Supply Chain Management: a Strategic Perspective .The International journal of Logistics Management, 12(1), pp.15-34. 10.Ellram, L. M. & Hendrick, T. E., 1995.Partnering Characteristics: A Dyadic Perspective, Journal of Business Logistics, VOL.16, pp.41-63. 11.Fogarty, et al., 1991.Production and Inventory Management, South-Western. 12.Gardner, J. H., Cooper, M. C., & Noordewier, T. G., 1994. Understanding Shipper-Carrier and Shipper-Warehouser Relationships:Partnerships Revisited, Journal of Business Logistics, Vol.2, pp.30-32. 13.Hjorth-Anderson, Chr., 1986.More on Multidimensional Quality: a Reply, Journal of Consumer Research, Vol.13, June, pp.149-154. 14.Kalakota, R. & Robinson, M., 2000.E-Business: Roadmap for success, Addison-Wesley Pub. 15.Khorramshahgol R. & Vassilis S. M.,1988.Delphic Hierarchy Process(DHP):A Methodology for Priority Setting Derived from the Delphi method and Analytical Hierarchy Process, European Journal of Operational Research, Vol.37, pp.347-354. 16.Marshall, C. & Rossman, G. B., 1999.Designing Qualitative Research, 3rd ed., Sage: Thousand Oaks, CA. 17.Michael, E. Porter, 1990.The Competitive Advantage of Nations, Harvard Business Review, 68, March-April, pp.73-93. 18.Neely, A., Gregory, M. & Platts, K., 1995.Performance measurement system design, International Journal of Operations & production Management,15(4), pp.80-116. 19.Otto, A. & Kotzab, H., 1999.How supply chain management contributes to the management of supply chains - preliminary thoughts on an unpopular question. In:Larsson, E., Paulsson, U., (Eds) ,Building New Bridges in Logistics, Lund University, Lund, pp.213-236. 20.Pattorn, Michael Quinn., 1990.Qualitative Evaluation and Research Methods, Newbury Park, London, New Delhi: Sage. 21.Romo, F. P. & Schwartz, M., 1995.Structural Embeddedness of Business Decisions, American Sociological Review. 22.Saaty, T. L., 1980.The Analytic Hierarchy Process, McGraw-Hill, New York. 23.Stevens, G., 1989.Integrating the Supply Chain, International Journal of Physical Distribution and Materials Management, Vol.19, pp.3-8. 24.Simchi-Levi, et al., 2001.Designing and Managing the Supply Chain, the McGraw-Hill Companies. 25.Tan K. C., V. J. Kannan & R. B. Handfield, 1998.Supply Chain Management: Supplier Performance and Firm Performance. International Journal of Purchasing and Materials Management, Summer, 34(3), pp.2-9. 26.Teigen, R., 1997.Information Flow in a Supply Chain Management System, Available at <http://www.eil.utoronto.ca/profiles/rune/dip-thesis.html>. 27.Vokurka, R. J., 1998.Supplier Partner rises:A Case Study, Production and Inventory Management Journal, First Quarter, pp.30-36.