

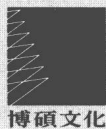
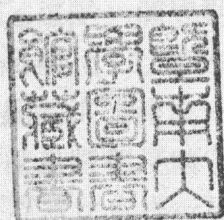
炬見工作室 著

A 4x4 grid of 16 images related to business and technology. The images include: binary code (0s and 1s), a person looking at a screen, a person working on a laptop, a person looking at a document, a person looking at a screen, a person looking at a screen, a person looking at a screen, a person looking at a screen, a person looking at a screen, a person looking at a screen, a person looking at a screen, a person looking at a screen, a person looking at a screen, a person looking at a screen, a person looking at a screen, a person looking at a screen. Large white arrows are overlaid on the grid, pointing in various directions (up, down, left, right, and diagonally).



知識管理知識管理

炬見工作室 著



博碩文化

知識管理

作 者：炬見工作室

發行人：林麗芬

總編輯：許耀豪

出版統籌：劉慧楨

執行編輯：柳綠兒

出 版：博碩文化股份有限公司

台北縣汐止市新台五路一段 112 號 10 樓 A 棟

TEL：(02)2696-2869 · FAX：(02)2696-2867

郵撥帳號：17484299

印 刷：盛詮印刷股份有限公司

律師顧問：劉陽明

出版日期：西元 2005 年 9 月初版

ISBN：957-527-852-6

博碩書號：BC20056

建議售價 NT \$ **550** 元

本書如有破損或裝訂錯誤，請寄回本公司更換

知識管理 / 炬見工作室著. -- 初版. -- 臺北縣汐止市：
博碩文化, 2005[民 94]

面：公分

ISBN 957-527-852-6 (平裝)

1. 知識管理

494.2

94017078

Printed in Taiwan

著作權聲明

本書著作權為炬見工作室所有，並受國際著作權法保護，未經授權任意拷貝、引用、翻印，均屬違法。

商標聲明

本書中所引用之商標、產品名稱分屬各公司所有，本書引用純屬介紹之用，並無任何侵害之意。

有限擔保責任聲明

雖然作者與出版社已全力編輯與製作本書，唯不擔保本書及其所附媒體無任何瑕疵；亦不為使用本書而引起之衍生利益損失或意外損毀之損失擔保責任。即使本公司先前已被告知前述損毀之發生。本公司依本書所負之責任，僅限於台端對本書所付之實際價款。

序

知識就是力量，就是核心競爭力。

每個時代都有它自己的關鍵要素，透過關鍵要素的發展，就會形成企業在那個時代的經營模式和產業背景。在目前時代經濟的快速變遷，以及全球化競爭的壓力下，可勾劃出現今時代是知識經濟時代。**知識經濟時代和以往最大的差異是它注重在無形資產。**知識不是資料數據(Data)、資訊(information)，它是一種專家經驗、企業價值，但它和這二者是生命共同體。身為知識經濟時代的企業，對於企業生存之道，更加比以往複雜和競爭結構不同，這是一個變動無常的環境，也是充滿商機的市場。企業如此，個人更是如此，以往的金飯碗和長期任用的根深蒂固觀念和文化，因於產業劇變的洪流淹沒一剎那間之前，就已於當權者在廁所空間決策之際，悄悄被更替和浸蝕了；同樣的風雲變色，以往不曾存有的數年就可登入全世界富比士排行榜的現象，這時只要你善用知識和創新，當家爲主的金鎖就在口袋裡。

這本書提供了完整的知識管理的知識，它是企業的核心競爭力和永續發展的關鍵報告，也是個人在企業職場的優質手冊。

知識管理改變了產品服務模式，它可將知識的內容包裝成軟體型式，進而來驅動硬體產品的功能。

從事產業實務顧問和學術理論研究的支援下，促使筆者在該本書撰寫的企圖心，雖然如此，但在筆者有限能力下仍是無法在這個浩瀚領域中得一全貌以及恐有失誤，因此，誠惶誠恐的期盼各界先進者和讀者，能爲本書不足和錯誤之處，不吝指正，其中也引用先進者相關文獻，謹在於講究完整性和重要性的參考引用，絕無侵害之意。在撰寫本書期間

中，相關朋友在收集資料和討論內容的努力，以及家人的支持，再加上出版編輯劉小姐的敦促幫忙，才得以完成這本書，雖然全力以赴投入，仍顯倉促和失誤在所難免，期望在下一個版本能更完整無誤和充實。

炬見工作室 94.8 敬

參考文獻 (依照書中參考順序)

1. Applehans, G. and Laugero, "Managing Knowledge-A Practice Web-Based Approach," *Journal of Management*, 1999.
2. Nonaka, I. & Takeuchi, H., "The Knowledge-Creating", Company Oxford University, 1995.
3. Zack, M. H. (1999), "Managing codified knowledge" *Sloan Management Review*, Summer: 40 (4): 45-58
4. Thomas H. Davenport & Laurence Prusak, "Working Knowledge: How organization manage what they know", Harvard Business School Press, 1998.
5. Wenerfelt, Birger (1984), "A Resource-Based View of the Firm," *Strategic management Journal*, vol. 15, 171-180.
6. Drucker, Peter F.(1985), *Innovation and Entrepreneurship*. NY: Harper and Row.
7. Wenerfelt, Birger(1989), "From Critical Resources to Corporate Strategy," *Journal of General Management*, Vol.14, No.3
8. Hall, Richard (1992), "The Strategic Analysis of Intangible Resources, *Strategic Management Journal*, vol. 13, no. 2, 135-144.
10. Leonard-Barton, Dorothy (1992), "Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development," *Strategic Management Journal*, vol.13, 111-125.
11. Gobeli, D. H. and Brown, D. J. (1993), "Improving the Process of Product Innovation," *Research Technology Management*, 36(2), 38-44.
12. Copper R. G. and Kleinschmidt, E. J. (1996), "Winning Business in Product Development: The Critical Success Factors," *Research Technology Management*, 39(4), 18-29.
13. Badaracco, J. L. (1991), "The Knowledge Link: How Firms Compete Through Strategic Alliances," *Boston, Mass.: Harvard Business School*.
14. Dosi, G. (1982), "Technological Paradigms and Technological Trajectories," *Research Policy*, Vol. 11, No. 3, pp. 147-162.
15. Teece, D. J. (1996), "Firm Organization, Industrial Structure, and Technological Innovation," *Journal of Economic Behavior & Organization*. 31:193-224.

16. Teece, D. J., Pisano, G. & Amy, S. (1997), "Dynamic Capability and Strategic Management," *Strategic Management Journal*, Vol. 18:7, pp.509-533.
17. Tushman, M. & Anderson, P. (1986), "Technological Discontinuities and Organizational Environments," *Administrative Science Quarterly*, 31, pp. 439-465.
18. Polanyi, M. (1958), *Personal Knowledge*, London.
19. Fleming, Q.W. & Koppleman, J.M (1997), "Integrated Project Development Team: Another Fad..Or a Permanent Change", *Project Management*, Vol.28, No.1, pp.4-11.
20. Dougherty (1990), "Understanding New Markets for New Product," *Strategic Management Journal*, Vol. 11, 59-78.
21. Simon, H. (1979), *The Architecture of Complexity. The Science of the Artificial*, Cambridge, MA: MIT Press.
22. Tyre, M. (1991), "Managing the Introduction of New Process Technology: International Differences in a Multi-Plant Network," *Research policy*, 20: 57-76.
23. Booz-Allen & Hamilton. (1982), *New products management for the 1980s*, New York: Booz, Allen and Hamilton.
24. 李仁芳、花櫻芬(1997)，技術知識類型與知識交流網路模型，科技管理學刊，第二卷第一期，pp75-121
25. Sanchez, R. (1996), "Managing articulated knowledge in competence-based competition," *Strategic Learning and Knowledge Management*, R. Sanchez and A.Heene, Chichester, England, New York: John Wiley & Sons. NA: 163-188.
26. Iansiti, M. & Clark, K. B. (1994), *Integration and Dynamic Capability: Evidence from Product Development in Automobiles and Mainframe Computers*, ICC, pp. 557-605.
27. Garud, R. & Kumarasawamy, A. (1995), "Technological and organizational designs for realizing economies of substitution", *Strategic Management Journal*, 16: 93-109.
28. Amabile, T. M. (1997), "Motivating Creativity in Organizations: On Doing What You Love and Loving What You Do" *California Management Review*, 40(1), 39-58.
29. Quintas, P. (1997), "Knowledge Management: a Strategic Agenda", *Long Range Planning*, 30(3): 385-391.

30. Roberts, B. (2000), "Pick employees' brains", HR Magazine, 45(2): 115-120.
- GartnerGroup (1999), "Knowledge Management: Understanding the Core value and science", Gartner Group Business Technology Journal, July.
31. Jeff Papows, (1998) "Market Leadership in the Information Age." :Lotus Publishing Company.
32. Wiig, K.(1993), Knowledge Management Foundations. Arlington: Schema Press.
33. Sveiby, K.(1997), The new Organizational Wealth. San Francisco: Berrett Koehler.
34. Van der Spek R. and Spijkervet A. (1997), Knowledge Management : Dealing Intelligently with Knowledge. Knowledge Management And Its Intergrative Elements, eds (Liebowitz, J. & Wilcox, L.). New York: CRC Press.
35. Arthur Andersen and The American Productivity and Quality Center.(1996) The Knowledge Management Assessment Tool: External Benchmarking Version, Winter.
36. Growth, Natarajan G. and Shekhar S., *Knowledge Management: Enabling Business*, McGrawHill, 2000.
37. McElroy, Mark W., 2003, *The New Knowledge Management—Complexity, Learning, and Sustainable Innovation*, Butterworth-Heinemann
38. Probst G., S. Raub and K. Romhardt, 2000, *Managing Knowledge: Building Blocks for Success*, John-Wiley.
39. Decision Support Systems and Intelligent Systems, Efraim Turban and Jay E. Aronson, 6th edition, Prentice Hall, Upper Saddle River, NJ
40. Debresson, C. & Amesse, F. (1991), "Network of Innovations: A Review and Introduction to the Issue", Research Policy, 20.
41. Anderson, H. and Havila, V. and Andersen, P. and Halinen, A.(1998), Position and Role-conceptualizing Dynamics in Business Networks, Scandinavian Journal of Management, 14, 3, 167-186.
42. Gulati, R. M. (1998), "Alliances and Networks", Strategic Management Journal ,Vol. 19, pp.293-317.
43. Gulati, R., Nohria N., & Zaheer A. (2000), "Strategic Networks", Strategic Management Journal, Vol. 21, Special Issue, pp.203-215.
44. 吳思華 (1998) , 策略九說－策略思考的本質, 第二版。台北：臉譜文化。
45. 李仁芳&張如蓮, 1997, 「高科技事業中創新類型與組織知識創造之研究」, 第二屆管理學術定性研究研討會, 國立台灣大學管理學院, 民 86 年 4 月 12 日。

46. OECD., 1996, *The Knowledge Based Economy*.
47. Alvin, T., "The Third Wave", *Future Shoes* (1980).
48. Dunning, J.H., "Alliance Capitalism and Global Business Londorr", *Capitalism Addison—Wesley* (1999).
49. At, k., Court, R.H., and Word, J.H., "The State New Economy Inder: Banchmadcing Ezonomic Transformation in the States. U.S.", *Progressie Potiny Institute* (1999).
50. 高希均，知識經濟的核心概念，天下文化(2000)。
51. Thurow, L., "Building Wealth: The Now Rules for Individuals. Compunies, and nations in a Knowledge-Based Economy", *New York: Harper business* (1999).
52. Peter, D., " Post-Capitalist Society ", *Press of Drucker Graduate School* (1993).
- Porter, M.E. (1990), "The Competitive Advantage of Nations" *New York: Siman & Sehuster*.
53. 王弓，知識經濟時代的產業發展政策，天下文化出版，第 213 期，第 65-76 頁 (2000)。
54. 行政院經濟建設委會所，知識經濟發展方案具體執行計劃，行政院經濟建設計畫(2001)。
55. 高洪深、楊宏志編著，知識經濟學，五南圖書出版(2003)
56. 蔡宏明，知識經濟時代對產業人力資源的挑戰和因應策略，經濟情勢季評論季刊，第五期第三卷。
57. Varian, H. and C. Shapiro (1998) *Information Rules: A Strategic Guide to the Network Economy*. Cambridge: Harvard Business School Press.
58. Purser, R. E., & Pasmore, W. A. (1992). *Organization for Learning. Research in Organizational Change and Development*, London: JAI, 37-114.
59. Andreas, A., Bernardi, A., Hinkelmann, K., Kuhn, O. & Sintek, M. (1998). *Toward a Technology for Organizational Memories*, IEEE Andrew, 1996
60. 經濟部，1996，經濟部 1995 產業技術白皮書，台北，經濟部
61. Bozeman, B., 1994, "Evaluating Government Technology Transfer: Early Impacts of the Cooperative Technology Paradigm," *Policy Studies Journal*, 22(2): 355-337.
62. 劉常勇，科技產業投資經營與競爭策略，華泰書局出版，1997 年 8 月。
63. Morin, J. and Rafferty, P. J. (1989) , "The Six Key Functions of Technological Resources Management," *Management of Technology II*, Khalil and Bayraktar (eds.), pp.621-627.

64. Hamel, G. and Prahalad, C. K. (1994), *Competing for the Future*, Triumph Publishing Co., Ltd., Havard Business School Press.
65. Betz, F. (1993), *Strategy Technology Management*, New York: McGraw-Hill.
66. Huang G.Q and Mak K.L, "The DFX shell: A generic framework for applying 'design for X'(DFX) tools", *Int. J. Computer Integrated Manufacturing*, Vol.11, No.6, pp475-484, 1998.
67. G.O. Huang, S.W. Lee, K.L. Mak, "Web-based product and process data modeling in concurrent "design for X", *Robotics and Computer-Integrated Manufacturing*, Vo l.15, pp. 53-63, 1999.
68. Tsai-C. Kuo, Samuel H., Huang Hong-C. Zhang, *Design for manufacture and design for 'X': concepts, applications, and perspectives*, *Computer & Industrial Engineering* 41 (2001), 241-260.
69. Narahari, Y. , Viswanadham, N. and Bhattacharya R., "Design of Synchronized Supply Chains : A Six Sigma Tolerancing Approach, "Proceedings of the 2000 IEEE International Conference on Robotics and Automation ,San Francisco, CA, 2000.
70. Vassiliadis, "Reliability and Maintenance Considerations in Process Design under Uncertainty.", *compute chem.. VOL. 22* ,P521-528,1998.
71. Bendell, A., "*Introduction to Taguchi Methodology, Taguchi Methods*", In: *Proceedings for 1988 European Conference*," London: Elsevier Applied Science, pp. 1-14, 1988.
72. Boothroyd, G., Poli, C., & March, L., "*Handbook of feeding and operating and orienting techniques for small part.*", Technique Report, Department of Mechanical Engineering, University of Massachusetts, 1978.
73. Boothroyd, G. and Dewhurst, P., "*Design for assembly-a designers handbook*", Technique Report, Department of Mechanical Engineering, University of Massachusetts, 1983.
74. Boothroyd, G. and Dewhurst, P., "*Product design for assembly*", Wakefield, RI: Boothroyd Dewhurst, 1986.
75. Boothroyd, G. and Dewhurst, P., & Knight, W., "*Product design for manufacturing and assembly*", New York: Marcel Dekker, Inc, 1994.
76. Corbett, J., Dooner, M. John, M. & Christopher, P., "*Design For Manufacture*", Addison-Wesiey, 1991.

77. Crow, K. A., Concurrent engineering In R. Bakerjian, "Tool and Manufacturing Engineers Handbook: Design for Manufacturability", pp.2-1-2-19, Vol. 6, 1983.
78. General Electric Co., "Manufacturing Reducibility Handbook (MPH)," Manufacturing Services Schenectady, NY, 1960.
79. Stoll, H. W., "Design for Manufacturing," Manufacturing Engineering, January, pp.67-73, 1988.
80. Tiwana,A.,2002, *The Essential Guide to Knowledge Management,: E-Business and CRM Applications*, Prentice Hall PTR.
81. Hubert, S., 1996, "Tacit knowledge: The key to the strategic alignment of intellectual capital," *Strategy and Leadership* 24(2), pp.10-14.
82. Davenport, T.H., Harris, J.G. and A.K. Kohli, 2001, "How Do They Know Their Customers So Well?," *MIT Sloan Management Review* 42(2), pp.63-
83. Gibbert, M., Leibold, M. and G. Probst, 2002, "Five Styles of Customer Knowledge Management, and How Smart Companies Use Them To Create Value," *European Management Journal* 20(5), pp.459-469.
84. Rowley,J.,2002, "Eight Questions for Customer Knowledge Management in e-business," *Journal of Knowledge Management* 6(5), pp.500-511.
85. Hamid, R.N. & David M.S. & Lakshmi S. I. & Richard T. H. (2002)," Knowledge warehouse: an architectural integration of knowledge management, decision support, artificial intelligence and data warehousing", *Decision Support Systems* 33, pp.143-161.
86. Chaua, K.W. &Ying, C. & Ansona, M. (2002)," Application of data warehouse and Decision Support System in construction management", *Automation in Construction* 12, pp. 213-224 .
87. Chaudhuri, S. & Dayal, U. (1997), "An overview of data warehouse and OLAP technology", *ACM SIGMOD Record*, pp. 65-74.
88. Mockler R.J., 1992, *Developing Knowledge-based Systems Using an Expert System Shell*, New York, Macmillan Publishing Company
89. Davenport, T. H., David, W. D. L. and Michael, C. B., 1998, Successful knowledge management projects. *Sloan Management Reviews*, Winter , 43-57.
90. Davenport, T.H., Sirkka L. Jarvenpaa. Michael C. Beers. "Improving Knowledge Work Process", *Sloan Management Review*, Summer 1996
91. Zack, Michael H., "Managing Codified Knowledge", *Sloan Management Review*, Vol.40, No.4, 45-58, 1999

92. Davenport, T.H., Sirkka L. Jarvenpaa. Michael C. Beers. "Improving Knowledge Work Process", Sloan Management Review, Summer 1996
93. Pasmore, William A. & Purser, Ronald E, Designing work systems for knowledge workers, The Journal for Quality And Participation, Vol.16, Jul/Aug 1993.
94. Negoita C.V., 1985, *Expert Systems and Fuzzy Systems*, New York, Berlin Heidelberg.
95. Glasser, P. 1998. The knowledge factor—knowledge management. Magazine, 12(6): 108-114.
96. Grant Robert M., 1996, Toward a knowledge-based theory of the firm, Strategic Management Journal, 1(17): 109-122.



CHAPTER

0

本書導讀

知識管理最根本的重點就是怎麼產生知識？而對於企業實務的運作而言，其隱含性知識，取得和學習最不容易，對於企業實質的競爭優勢進入障礙高，因此如何運用知識螺旋（外顯與隱含知識），就成為企業的核心競爭力(Core Competence)形成所在，經驗與資訊不再是企業永續發展的萬靈丹，導入知識管理模式和系統，才是企業的競爭優勢。

企業必須運用知識管理來洞悉技術落差、善用經濟發展的差距和掌握社會的轉變，才能享有高成長。而本書架構即是以此觀念延伸擴展而來的，茲將說明如下：

在本書架構安排下，是以知識管理體系的根本原理，去思考出脈絡關聯和循序程序方式，來撰寫本書，目的是在於給讀者先有整體架構觀，及清楚原理思考，再往下有層次的介紹說明每一項細節重點，如此閱讀完後，就知道如何運用知識管理，及整個層次運作步驟，而不會只是知道一大堆名詞和片段知識管理運作內容。

從下圖中，來介紹說明整體架構觀的原理思考：

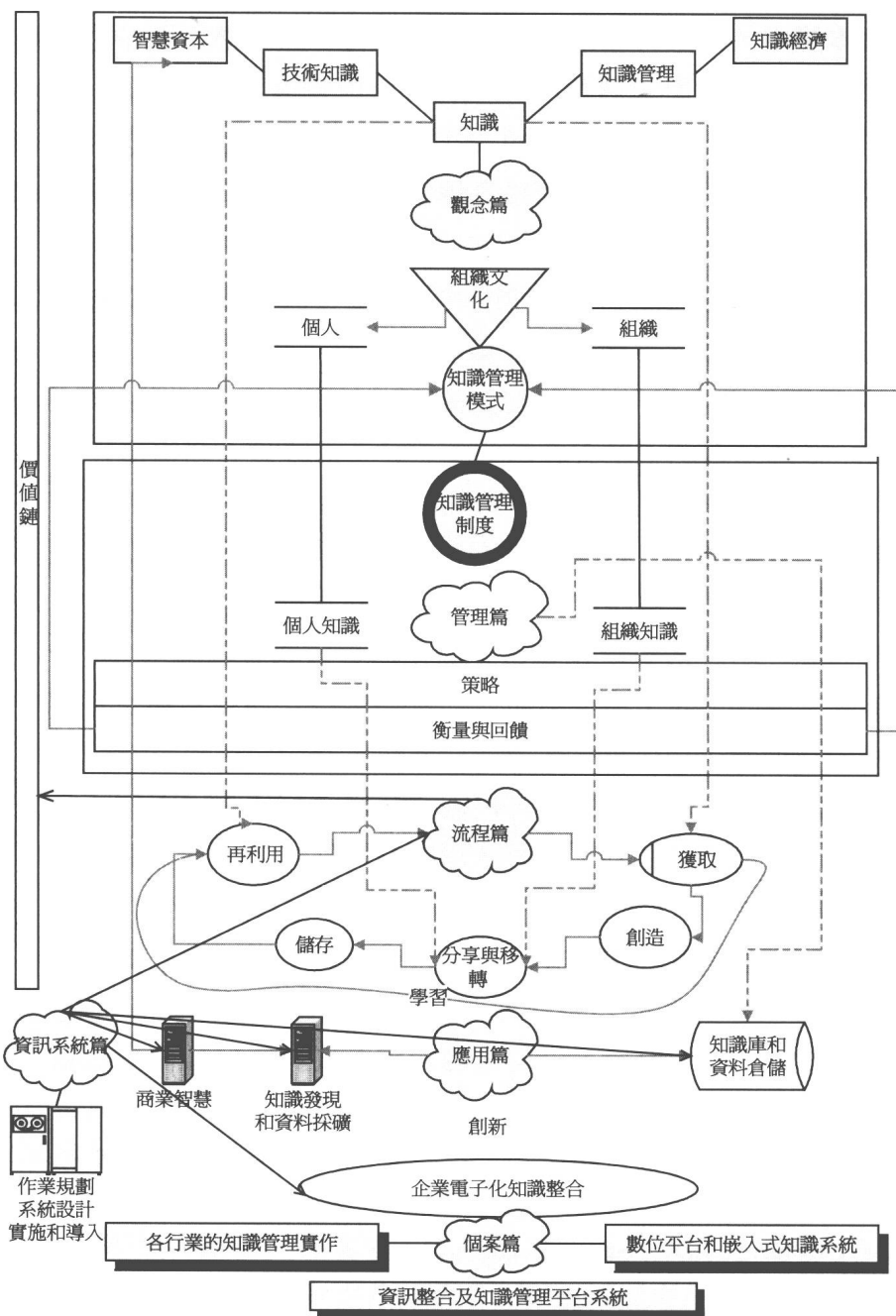


圖 0-1 本書架構

萬本歸中，皆來自於最根本的原理思考，以本書主題中心就是「知識」，從知識發展出二個方向：

一是在體制上的管理面構思（知識管理），再延伸到經濟面分析（知識經濟）；另一是在本體上的知識轉移（技術知識），再延伸到知識成果（智慧資本）。

這樣脈絡就會影響在組織文化中，最後整個脈絡觀念就會成為知識管理的模式，這些內容構成觀念篇。

企業運作，一定要先了解觀念所在，才有運作切入方向。談完脈絡觀念後，了解知識必須融入在組織文化中，這時個人和組織在企業運作就扮演非常重要角色，它會擬定以知識管理為基的知識策略，而要發展知識策略，當然個人和組織就會產生所謂的個人知識和組織知識，接下來，知識策略的落實有賴於知識管理制度的實施，實施後就須能做知識衡量與回饋，來評估績效和改善，這些內容構成管理篇。

談完管理制度後，接下來如何執行和實踐知識管理模式和制度，就須要知識管理的生命週期，在這週期執行實踐中，其整個過程都是又回歸到「知識」脈絡觀念，並且可再創新成為知識成果（智慧資本），如此才能真正落實知識管理，進而建構成學習性的知識價值鏈，這些內容構成流程篇。

在這個資訊時代，知識管理的執行和實踐，一定要以資訊科技平台來建置，所以會建構成知識管理流程系統，並且在知識管理流程運作中，會產生所謂的知識庫，以及透過知識發現和資料採礦方法論，會產生具有智慧資本的商業智慧等這些應用，當然這些應用也會成為資訊科技平台，最後經過這些資訊應用系統，會產生知識的創新，並和其他資訊系統成為企業電子化知識整合，這些內容構成資訊系統篇和應用篇。

以下將對上述的各篇範圍內容做說明：

首先，依據從由淺入深、循序漸進的方式和整體架構觀的原理思考，分別有六大篇：觀念篇、管理篇、流程篇、資訊系統篇、應用篇、

個案篇。

在觀念篇是來引導知識和知識管理的定義、特性、及和企業營運的互動。在管理篇上，就是針對知識管理的管理面來探討，它包含策略、知識衡量與回饋、個人知識、組織知識、知識管理制度等。

在流程篇上，主要是針對知識管理的生命週期，這裡面牽涉到知識的獲取、創造、分享與移轉、儲存和再利用等循環流程，及組織性學習方法，在這篇，因為企業資訊應用範圍目前是發展到產業鏈，故也會介紹到知識價值鏈的模式、關聯、內容等。而為了讓讀者有具體實務的方法論，可應用在個人和企業內，故在這篇，會以「知識地圖」來做為方法論的平台，它和傳統的資料文件存取流程是不一樣的，最重要差異內容是前者有知識特性和知識管理的運作，有關這部份細節內容是參考第12章到第16章內容，它是從知識的獲取、創造、分享與移轉、儲存和再利用、學習等知識管理循環流程，來建構知識地圖的方法論。

在資訊系統篇上，主要是知識管理的作業規劃、知識管理的系統設計、知識管理系統的實施和導入，而這個資訊系統也加入企業兩岸三地的知識管理運籌模式內；另外，為了讓老闆和主管們可用知識管理基礎來經營管理決策，故也會談及知識管理的決策支援系統。

在應用篇，是加上以目前較新的研究領域和業界新導入的一些應用系統，它包含知識庫和資料倉儲、商業智慧、知識和科技管理的創新、知識發現和資料採礦；另外，知識管理的應用絕對不是單一系統運作，它必須和其他資訊系統整合，亦即企業電子化知識整合，分別有e-procurement系統、PDM系統、CRM系統、MES系統、SCM系統等的整合。

在個案篇上，是以三個案例來驗證及輔助說明之前的內容，進而讓讀者有實務體驗，而這三個案例，除了運用知識管理的方法外，更融入一些新的科技系統和智慧型方法論內，它包含智慧型的資訊整合及知識管理平台系統，及以多媒體為基礎的數位平台和嵌入式知識系統。最