

**LOTUS QUICKPLACE AS A KNOWLEDGE  
MANAGEMENT SOLUTION FOR MSC(IT)  
PROGRAM COURSES**

A thesis submitted to the graduate school in partial  
fulfillment of the requirements for the degree  
Master of Science (Information Technology)  
Universiti Utara Malaysia

By

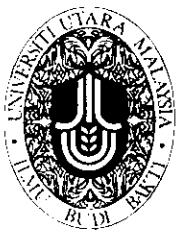
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## **ABSTRAK**

Pengurusan Pengetahuan adalah salah satu topik yang hangat diperkatakan dalam organisasi pada masa kini. Ianya merupakan fokus organisasi dalam memenuhi cabaran terhadap persaingan dalam ekonomi masa sekarang. Ianya juga menunjukkan bagaimana sesuatu organisasi menguruskan sumber-sumber berkaitan intelektual dan juga pendekatannya terhadap penggunaan teknologi moden.

Terpulang kepada organisasi untuk menentukan sama ada sesuatu maklumat itu perlu dikategorikan sebagai maklumat intelektual, dan adakah ianya merupakan suatu aset yang bersandarkan kepada pengetahuan, kerana bukan semua maklumat berada dalam kategori tersebut. Walau bagaimanapun, secara amnya, maklumat intelektual yang boleh digolongkan sebagai aset yang bersandarkan kepada pengetahuan ini boleh dibahagikan kepada dua kategori iaitu pengetahuan ‘explicit’ dan pengetahuan ‘tacit’. Pengetahuan ‘explicit’ adalah aset dalam bentuk seperti paten, ‘trademark’, perancangan perniagaan, kajian pemasaran dan senarai pelanggan. Secara keseluruhannya, pengetahuan ‘explicit’ adalah terdiri daripada sebarang perkara yang boleh didokumen, direkod dan disusunkan secara sistematik, yang selalunya dilakukan dengan bantuan teknologi maklumat. Pengetahuan ‘tacit’, ataupun apa yang berada dalam pemikiran seseorang manusia pula lebih sukar untuk dijanakan. Cabaran berkenaan pengetahuan ‘tacit’ adalah bagi memastikan bagaimana untuk mendapat, menghasil, berkongsi dan menguruskan pengetahuan tersebut.

Dalam kes ini, alatan Pengurusan Pengetahuan membolehkan sesebuah organisasi untuk mengatasi masalah yang dinyatakan. Alatan Pengurusan Pengetahuan yang lengkap, terdiri daripada pakej e-mail sehinggalah alatan kolaborasi yang sofistikated, yang dapat menyokong pembagunan dan identiti sesebuah komuniti. Secara amnya, alatan ini terbahagi kepada satu atau lebih daripada kategori berkenaan: aplikasi pembelajaran elektronik, teknologi perbualan dan diskusi, alatan interaksi serentak, dan alatan carian dan proses data.

Projek “ Lotus QuickPlace Sebagai Satu Penyelesaian Pengurusan Pengetahuan Terhadap Kursus-Kursus Program MSc(IT)” ini telah menggunakan teknologi alatan Pengurusan Pengetahuan untuk mencipta penyelesaian dalam membantu organisasi untuk membangunkan suatu strategi yang memfokuskan tentang bagaimana untuk menjana pengetahuan dalam sesebuah organisasi. Lotus QuickPlace telah digunakan dalam mengimplementasikan projek ini.

## **ABSTRACT**

Knowledge Management is one of the hottest topics in organization nowadays. The focus of the efforts of many businesses is to meet the challenges of competition in the modern knowledge economy. It also provides a powerful way of looking at the way the organization organizes itself and uses its intellectual resources and promises a means of humanizing the approach to modern technology, putting the understanding of human intellect and motivation at the center.

It is up to organizations to determine what information qualifies as intellectual and knowledge-based assets because not all information is knowledge. In general, however, intellectual and knowledge-based assets fall into one of two categories that is, explicit or tacit. Included among the former are assets such as patents, trademarks, business plans, marketing research and customer lists. As a general rule of thumb, explicit knowledge consists of anything that can be documented, archived and codified, often with the help of IT. The concept of tacit knowledge, or the know-how contained in the people's heads, is much harder to grasp. The challenge inherent with tacit knowledge is figuring out how to recognize, generate, share and manage it.

In this case, Knowledge Management tools enable organization to overcome the above mention problem. Knowledge Management tools run the complete range, from standard, off-the-shelf e-mail packages to sophisticated collaboration tools designed specifically to support community building and identity. Generally, tools fall into one or more of the following categories namely e-learning applications, discussion and chat technologies, synchronous interaction tools, and search and data mining tools.

This project “Lotus QuickPlace As A Knowledge Management Solution for MSc(IT) Program Courses” makes use of the technology of Knowledge Management tools to create solution in helping organization to develop a strategy that focuses on how to extract the knowledge in the organization. Lotus QuickPlace has been mainly used in implementing this project.

## **ACKNOWLEDGEMENT**

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Thanks and best regards.

Yours sincerely,

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## **CHAPTER 1**

### **INTRODUCTION**

Early in the industrial era, organizations improved their efficiency, effectiveness and hence, their competitive edge by automating manual labor and reducing redundancy. However, now, in the age of the knowledge worker, many organizations have gone through massive restructuring to eliminate redundant workers and jobs. This movement has been swept up by business process re-engineering that resulted in leaner organizations. However, organizations are facing increasingly global competition and a more sophisticated consumer. To stay competitive, companies must still be innovative in reducing their costs and expanding their markets. Thus, organizations are streamlining their processes and management is increasingly aware that knowledge resources are essential to the development of their organizations. Many business executives understand that they need to manage their organization's knowledge assets and facilitate knowledge sharing among their employees. The reaction to this issue is that it has generated of the term "knowledge management" which seems to be on the tips of everyone's tongues these days.

Organizations are beginning to realize that there is a vast and largely untapped asset diffused around in the organization, which is knowledge. Knowledge Management emerged with not only the need to be cost-efficient and managerially effective in problem solving, decision making, innovation and all other elements needed to maintain and develop a competitive edge, but also more specifically, to capture,

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## **REFERENCES**

Bhatt, G. D. (2000). "Organization Knowledge in the Knowledge Development Cycle." Journal of Knowledge Management, Emerald University Library.

<http://www.emerald.library.com>

Charney, M, Jordan, J, Ryan J. (2000). "How Knowledge Management Makes Customer Satisfaction a Strategic Asset: A ServiceWare White Paper".

<http://www.serviceware.com/pdf/KMwhitepaper.pdf>

CIO Communications Inc. (1999). "Knowledge Management: Big Challenge, Big Reward", [http://www.cio.com/sponsors/091599\\_km\\_1.html](http://www.cio.com/sponsors/091599_km_1.html)

Finneran, T. (2000). "A Component-based Knowledge Management System"

<http://www.ciber.com/downloads/whitepapers/knowledgemgmt/>

Gill, P.J. (2001). "On the Trail of Knowledge."<http://www.destinationcrm.com>

Greg Dyer (1999), "Knowledge Management: Hitting Its Stride".

<http://www.idc.com/ITAdvisor/press/IT000605.htm>

Gupta, B, Lakshmi S. Iyer, Jay E. Aronson. (2000). "Knowledge Management: Practices and Challenges". <http://www.managementfirst.com/articles/knowledge.htm>

Hill, K. (1999). "Managing Knowledge with a Component architecture System"  
<http://www.cisco.com/warp/public/779/smbiz/netsolutions/articles/architecture/>

"Knowledge Management: A Premier for Executives", <http://www.lotus.com>

Larsen, C. (2001). "What is Knowledge Management and How Can It Help Your Organization?"<http://www.aquasinc.com/knowledge-management/KMMay2001.htm>

KPMG Management Consulting. (1998). "Knowledge Management Research Report". <http://www.kpmg.co.uk>

Manasco, B. (1999). "Knowledge Strategies Generate Lasting Value",  
<http://webcom.com>

Newcombe, T. (1999). "Knowledge Management: New Wisdom or Passing Fad",  
<http://www.govtech.net/magazine/gt/1999/june/magastory/feature.phtm>

Nonaka, I, Takeuchi, H. (1995). "The Knowledge Creating Company: How Japanese Companies Create the Dynamics of Innovation". Oxford University Press, Oxford, UK.

Brint.com. (2001). "Process to product: Creating Tools for Knowledge Management". <http://www.brint.com/members/online/120205/jackson/secn3.htm>

Raisinghani, M.S. (1999). "Knowledge Management: An Intriguing Mix of Technology and Decision-Making, Center for Applied Information Technology."

<http://www.caitud.org>

Ruggles, R.L. (1997). "Knowledge Management Tools", Oxford, Butterworth-Heinemann.

Senge, P. (1990). "The Fifth Discipline: The Art and Practice of The Learning Organization". <http://www.rtis.com/nat/user/jfullerton/review/learning.htm>

Strassmann, P. (2000). "The Importance of Knowledge Capital".

<http://files.strassmann.com/pubs/km/2000-3.php>

Thomas H. Davenport. (1997). "Knowledge Management at Ernst & Young", <http://www.bus.utexas.edu/kman/E&Y.htm#Rating>

Villegas, R. Jr. (2000). "Knowledge Management White Paper", New Century Marketing Concepts (NCMC). <http://www.insmkt.com>

Wensley, A. (1999). "Tools for Knowledge Management", International Center for Applied Studies in Information Technology (ICASIT). <http://www.icasit.org>