

# Shaping Business Strategy in a Networked World

Volume I

Proceedings of ICEB2004  
December 5~9, 2004, Beijing, China

Edited by Jian Chen



INTERNATIONAL ACADEMIC PUBLISHERS  
WORLD PUBLISHING CORPORATION

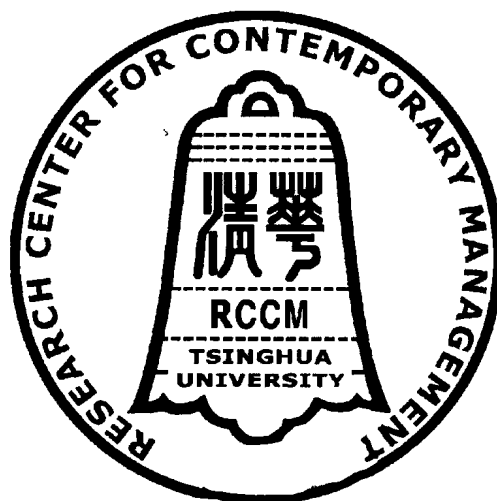
# **Shaping Business Strategy in a Networked World**

—Proceedings of ICEB2004.

December 5~9, 2004, Beijing, China.

Edited by: Jian Chen

Volume I



**INTERNATIONAL ACADEMIC PUBLISHERS**

**WORLD PUBLISHING CORPORATION**

图书在版编目 (CIP) 数据

第四届电子商务国际会议 (ICEB2004) 论文集 / 陈剑  
主编. - 北京: 世界图书出版公司北京公司, 2004.11  
ISBN 7-5062-7342-X

I. 第... II. 陈... III. 电子商务 - 国际学术会议 - 文集  
IV. F713.36

中国版本图书馆 CIP 数据核字 (2004) 第 115249 号

Published and Distributed by  
International Academic Publishers/  
Beijing World Publishing Corporation  
137 Chaonei Dajie, Beijing 100010  
The People's Republic of China  
E-mail: wgxs@public3.bta.net.cn

Copyright © 2004 by International Academic Publishers/World Publishing Corporation

The book has been photographically reproduced from the best available copy. The papers were not refereed but were reviewed for their technical contents. Editing was restricted to matters of format, general organization and retyping.

The editors assume no responsibility for the accuracy, completeness or usefulness of the information disclosed in this volume. Unauthorized use might infringe on privately owned patents of publication right. Please contact the individual authors for permission to reprint or otherwise use information from their papers.

BI00800

ISBN 7-5062-7342-X

First edition 2004

Edited by Jian Chen  
**SHAPING BUSINESS STRATEGY IN A NETWORKED WORLD**  
- Proceedings of The Fourth International Conference on Electronic Business  
*Volume I*

# **The Fourth International Conference on Electronic Business**

**Theme: Shaping Business Strategy in a Networked World**

**December 5 ~ 9, 2004  
Xiyuan Hotel, Beijing, China**

## **CO-ORGANIZERS:**

Tsinghua University, Beijing, China  
The National University of Singapore, Singapore  
National Chiao Tung University, Hsinchu, China  
The Chinese University of Hong Kong, Hong Kong, China

## **SUPPORTED BY:**

National Natural Science Foundation of China  
Science Fund for Creative Research Groups

## **HOSTED BY:**

School of Economics and Management, Tsinghua University, Beijing, China  
Research Center for Contemporary Management, Tsinghua University, Beijing, China

## **CONFERENCE ADVISORS:**

*Chunjun Zhao*, Dean, School of Economics and Management, Tsinghua University, Beijing, China  
*Lim chin*, Dean, NUS Business School, NUS, Singapore  
*Hanlin Li*, Dean, College of Management, National Chiao Tung University, Hsinchu, China  
*T.S. Lee*, Dean, Faculty of Business Administration, The Chinese University of Hong Kong, Hong Kong, China

## **CONFERENCE CHAIR:**

*Jian Chen*, Tsinghua University, China

## **CONFERENCE COORDINATORS:**

|                        |                                                       |
|------------------------|-------------------------------------------------------|
| <i>James S. K. Ang</i> | National University of Singapore, Singapore           |
| <i>Waiman Cheung</i>   | The Chinese University of Hong Kong, Hong Kong, China |
| <i>Lihua Huang</i>     | Fudan University, China                               |
| <i>Eldon Y. Li</i>     | California Polytechnic State University, USA          |
| <i>C. C. Lo</i>        | National Chiao Tung University, Hsinchu, China        |

## **INTERNATIONAL PROGRAM COMMITTEE:**

|                            |                                                       |
|----------------------------|-------------------------------------------------------|
| <i>Paul Alpar</i>          | Philipps-Universitaet Marburg, Germany                |
| <i>James S. K. Ang</i>     | National University of Singapore, Singapore           |
| <i>Gilbert Babin</i>       | HEC - Montreal, Canada                                |
| <i>Guoqing Chen</i>        | Tsinghua University, China                            |
| <i>Edwin T.C. Cheng</i>    | Hong Kong Polytechnic University, Hong Kong, China    |
| <i>Waiman Cheung</i>       | The Chinese University of Hong Kong, Hong Kong, China |
| <i>Phillip Ein-Dor</i>     | Tel-Aviv University, Israel                           |
| <i>Timon C. Du</i>         | The Chinese University of Hong Kong, Hong Kong, China |
| <i>Curtis P. Haugtvedt</i> | Ohio State University, USA                            |

|                           |                                                        |
|---------------------------|--------------------------------------------------------|
| <i>Lihua Huang</i>        | Fudan University, China                                |
| <i>Robert J. Kauffman</i> | University of Minnesota, USA                           |
| <i>Kee Young Kim</i>      | Yonsei University, Korea                               |
| <i>Ching-Chyi Lee</i>     | The Chinese University of Hong Kong, Hong Kong, China  |
| <i>Doo-Hee Lee</i>        | Korea University, Korea                                |
| <i>J. K. Lee</i>          | KAIST, Korea                                           |
| <i>Dong Li</i>            | Peking University, China                               |
| <i>Eldon Y. Li</i>        | California Polytechnic State University, USA           |
| <i>Baoding Liu</i>        | Tsinghua University, China                             |
| <i>C. C. Lo</i>           | National Chiao Tung University, Hsinchu, China         |
| <i>Holger Luczak</i>      | Aachen University of Technology, Germany               |
| <i>Marjatta Maula</i>     | Tampere University of Technology, Finland              |
| <i>Kar Yan Tam</i>        | University of Science and Technology, Hong Kong, China |
| <i>Felix B Tan</i>        | The University of Auckland, New Zealand                |
| <i>A. Whinston</i>        | University of Texas, Austin, USA                       |
| <i>D. J. Wu</i>           | Georgia Institute of Technology, USA                   |
| <i>Xiande Zhao</i>        | The Chinese University of Hong Kong, Hong Kong, China  |
| <i>Kevin Zhu</i>          | University of California, Irvine, USA                  |
| <i>Vladimir Zwass</i>     | Fairleigh Dickinson University, USA                    |

#### **ORGANIZING COMMITTEE:**

|                        |       |
|------------------------|-------|
| <i>Yan Zhu (chair)</i> | China |
| <i>Helen Lifen Wu</i>  | China |
| <i>Junjie Wu</i>       | China |
| <i>Hongyan Xu</i>      | China |
| <i>Xin Zheng</i>       | China |

## **PREFACE**

Welcome to the Fourth International Conference on Electronic Business (ICEB2004). The Fourth International Conference on Electronic Business is co-organized by Tsinghua University(Beijing), The National University of Singapore, National Chiao Tung University(Hsinchu), and The Chinese University of Hong Kong; and hosted by School of Economics and Management and Research Center for Contemporary Management, Tsinghua University.

As we all know, with the rapid development of Internet, the development of e-business has never stopped, even after the shakeout of dot-com companies. Internet is making revolutionary changes in the way of business operation. The traditional business model was challenged. In the meantime, the business opportunities for success are huge and so are the risks for failure. The Fourth International Conference on Electronic Business continues to be a unique venue bringing together leading researchers and practitioners in all areas of e-business. The conference committees received about 400 abstract and full paper submissions from 31 countries and regions, and 250 accepted papers have been included in the proceedings. The subjects of the papers range from theories to applications, topics include SCM & e-Logistics, e-Marketing & Service Management, e-Business Model, e-Business Management & Strategy, e-Business-based Organization Management & Innovation, Virtual Organization Management, Mobile Commerce & Business, Trust & Reputation Management, Knowledge Management in e-Business, Internet Security & Privacy, Decision Support & Analysis Techniques, P2P Computing & Grid Computing in e-Business, Case Study in e-Business, Policy, Cyber Law & Intellectual Property, and others related topics.

The conference has received generous support and help from many people and organizations to make this event possible. Firstly, I would like to express my sincere thanks to all the authors for their excellent contributions and to all the paper referees for their time and expertise regarding paper review, particularly, to the invited speakers, Prof. Robert J. Kauffman from University of Minnesota and Prof. David D. Yao from Columbia University, for delivering their plenary talks at the conference. Specially, I would also like to extend my appreciation to the National Natural Science Foundation of China (NSFC) and Science Fund for Creative Research Groups for their financial support and all the program committee members for their efforts and support to the conference. Most especially, I would like to thank all the conference secretariat staffs for their outstanding work for the conference.

Welcome to Beijing, one of the fastest growing and most dynamic cities of the world in 21<sup>st</sup> century! Wish all of you have a productive conference and enjoyable time in Beijing!

Jian Chen  
Conference Chair, ICEB2004

# CONTENTS

## VOLUME I

### PART I SCM AND E-LOGISTICS

|                                                                                                                                                                         |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| A Framework to Support Coalition Formation in Supply Chain Collaboration<br><b>Chattrakul Sombatteera, Aditya Ghose, Peter Hyland (Australia)</b> .....                 | 1  |
| A Study of Benefits of Information Sharing between Production Systems and Service Centers<br><b>N. Viswanadham, Vijay Desai (Singapore)</b> .....                       | 7  |
| A Study of Corporate Managerial Module and Information System Orienting Agile Virtual Enterprises<br><b>Tong Shu, Shou Chen (China)</b> .....                           | 14 |
| A Study of Single-vendor and Multiple-retailers Pricing-Ordering Strategy under Group-Buying<br>Online Auction<br><b>J. Chen, Yunhui Liu, Xiping Song (China)</b> ..... | 19 |
| An E-Logistics Model for Effective Collaborative Commerce<br><b>Pradeep Kumar, Tapas Mahapatra (India)</b> .....                                                        | 24 |
| An XCS-Based Intelligent Searching Model for Cross-Organization Identity Management in Web Service<br><b>Chichun Lo, Weili Lin, Jay Wu (Taiwan, China)</b> .....        | 28 |
| Assessment of Service Quality of Logistics Center in Chain Stores Based on Fuzzy Logic and TOPSIS<br><b>Sheng Li (China)</b> .....                                      | 34 |
| Asymmetric Demand Information and Channel Profits When Retailers Compete<br><b>Bin Xiao, Lu Liu, Aling Zhang (China)</b> .....                                          | 38 |
| Bidding Strategies Analysis for Procurement Combinatorial Auctions<br><b>J. Chen, He Huang (China)</b> .....                                                            | 41 |
| Business Interactions with Web Services<br><b>Youcef Baghdadi (Oman)</b> .....                                                                                          | 46 |
| Collaboration Strategy of Business-to-Business Enhancing Customer Satisfaction<br><b>Chulsoo Kim, Youn Tae Kim (Korea)</b> .....                                        | 52 |
| Collaborative Planning, Forecasting and Replenishment: Demand Planning in Supply Chain Management<br><b>Hokey Min, Wenbin Yu (USA)</b> .....                            | 58 |
| Cooperation in Reverse Logistics<br><b>Yunfeng Zhang, Jianjing Sun (China)</b> .....                                                                                    | 63 |
| Coordination Mechanisms in the Supply Chain Based on E-business<br><b>Suicheng Li, Xianxia Cui, Gongqian Liang (China)</b> .....                                        | 68 |
| Decision Model for COTS Component Procurement Based on Case-based Retrieval and Goal Programming<br><b>Xinwei Yuan, Jingbing Yi, Jun Cai (China)</b> .....              | 73 |
| Design of an E-SCM System for an Auto-parts Companies<br><b>Jun Su Lee, Jae Byung Rhu, Ki Seong Kim, Myung Hyun Oh, Jong Yeong Lee, Byung Ho Jeong (Korea)</b> .....    | 77 |
| Development Stages of Supply Chain Management in E-Business Environment<br><b>JeongWook Choi (Korea)</b> .....                                                          | 82 |
| E-Booking Control Problem in Sea Cargo Logistics<br><b>Chengxuan Cao, James Soo Keng Ang, Hengqing Ye (Singapore)</b> .....                                             | 87 |
| E-Logistics Comparative Positioning Model: A Multi-National Enterprise Airline Study<br><b>John Hamilton (Australia)</b> .....                                          | 93 |

|                                                                                                                                                                       |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| E-supply Chain's Implementation in a Transit Economy<br><b>Lihua Chen, Tao Yan (China)</b> .....                                                                      | 101 |
| Experimental Study on Effect of Information Behavior by Media Representation Patterns of<br>E-commerce System<br><b>Jiangyu Li (China)</b> .....                      | 110 |
| Generic Supply Chain Management System<br><b>Man Hing Yu, Chee Chern Lim, Jesse S.Jin, Vera Chung (Australia)</b> .....                                               | 114 |
| Hierarchical Structuring of a Workflow Model in Petri-Net<br><b>Xinlei Zhao, Yongsun Choi (Korea)</b> .....                                                           | 117 |
| Manufacturing Enterprises Value Chain Model Analysis within the Context of the Network Economy<br><b>Xuejun Xu, Li Luo, Xuelan Hua, Jianhui Huang (China)</b> .....   | 122 |
| On Inventory Strategies of Online Retailers<br><b>Frank Y. Chen (Hong Kong, China), S. H. Hum, Cheryl H. Sim (Singapore)</b> .....                                    | 127 |
| On-demand Business Process Integration Based on Intelligent Web Services<br><b>Xiaohua Lu, Yinsheng Li, Ying Huang (China)</b> .....                                  | 132 |
| A Two Phase Verification Algorithm for Cyclic Workflow Graphs<br><b>Yongsun Choi (Korea)</b> .....                                                                    | 137 |
| Pricing Policy for Supply Chain in the Electronic Commerce Environment<br><b>Qiong Guo, Deli Yang, Jianjun Wang, Yunhu Huo (China)</b> .....                          | 144 |
| Recomposing of Industrial Supply Chain and Constructing of Digital CBD<br><b>Baixin Yang, Deli Yang, Yunfu Huo (China)</b> .....                                      | 149 |
| Research on the Supply Chain Partnership Relations with Association Rule Analysis<br><b>Huiying Zhang, Dezhi Zhu, Jin Du, Xin Chen (China)</b> .....                  | 154 |
| Studies on Horizontal Competition among Homogenous Retailers Based on Agent-based Approach<br><b>Ming Xie, J. Chen (China)</b> .....                                  | 158 |
| Study of Information Supply Chain and Artificial Neural Network's Related Application<br><b>Qian Li, Yongxian Wang, Youqin Zhu (China)</b> .....                      | 164 |
| Study on Distribution Patterns of E-Business Based Agricultural Products Logistics<br><b>Yingrong Lu, Yinsheng Yang, Feng Lu, Xu Sun (China)</b> .....                | 169 |
| Study on Supply Chain Managemen in Electronic Commerce<br><b>Yuhua Hou, Zheng Sun (China)</b> .....                                                                   | 175 |
| Supply and Demand Management under Inducement of Price Discounts - A Monte Carlo Simulation Analysis<br><b>Henry C. Co (USA)</b> .....                                | 180 |
| Taking Advantage of E-Logistics to Strengthen the Competitive Advantage of Enterprises in China<br><b>Jianjun Wang, Deli Yang, Qiong Guo, Yunfu Huo (China)</b> ..... | 185 |
| The Distribution Network Planning Using Geographic Information System (GIS)<br><b>Hai Yu, Linning Cai (China)</b> .....                                               | 190 |
| The Impact of IT Capability and E-business on the Supply Chain Performance<br><b>Linglang Tang, Chiachi Shih, Chengchuang Hon (Taiwan, China)</b> .....               | 193 |
| The Implementation of an Intelligent Logistics Tracking System Utilizing RFID<br><b>Chichun Lo, Wenchuan Hsieh, Litsung Huang (Taiwan, China)</b> .....               | 199 |
| The Operating Cost in a Tele-working Organization<br><b>Xiaojun Li, Pengzhu Zhang, Fanghsin Liu (China)</b> .....                                                     | 205 |
| The Virtual Service Value-Chain: Disruptive Technology Delivering Competitive Advantage for the<br>Services Industry<br><b>John Hamilton (Australia)</b> .....        | 211 |

|                                                                                                                                                               |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| The Web Services on Mobile Shopping Automation<br><b>Chengchih Yang, Chengmin Lin, Shihung Chen</b> ( <i>Taiwan, China</i> ) .....                            | 219 |
| Trust, Relationship Commitment and Supply Chain Integration in China<br><b>Baofeng Huo, Xiande Zhao, Jeff Hoi Yan Yeung</b> ( <i>Hong Kong, China</i> ) ..... | 223 |

## **PART II E-MARKETING AND SERVICE MANAGEMENT**

|                                                                                                                                                                                                                                                             |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| A Comparison of Brand Loyalty in Online and Physical Channels: An Empirical Application to Supermarkets<br><b>Javier Cebollada</b> ( <i>Spain</i> ) .....                                                                                                   | 229 |
| A Defection Detection Procedure Using SOM and Markov Chain: A Case of On-line Game Providers<br><b>Kyunghee Chae, Heeseok Song, Juchoel Choi</b> ( <i>Korea</i> ) .....                                                                                     | 233 |
| A Global Comparative Study of Online Auction Markets<br><b>James K. Ho</b> ( <i>USA</i> ) .....                                                                                                                                                             | 239 |
| A Model of Customer Lifetime Value Consider with Word-of-mouth Marketing Value<br><b>Yongmei Liu, Zhenjun Zhao, Yanlong Zhang, Hongjian Lu</b> ( <i>China</i> ) .....                                                                                       | 245 |
| An Exploratory Study of the Effects of CRM Practices on CRM Effectiveness and Business Performance<br><b>Jashen Chen</b> ( <i>Taiwan, China</i> ), <b>Russell K.H. Ching</b> ( <i>USA</i> ), <b>Eldon Y. Li, Yiling Liao</b> ( <i>Taiwan, China</i> ) ..... | 249 |
| An Intelligent Model for Stock Investment with Buffett Strategy, Classifier System, Neural Network and Linear Programming<br><b>Anping Chen, Weili Lin, Yenchu Chen</b> ( <i>Taiwan, China</i> ) .....                                                      | 255 |
| Analysis of Costs, Benefits and ROI of CRM Implementation<br><b>Lun Hou, Xiaowo Tang</b> ( <i>China</i> ) .....                                                                                                                                             | 261 |
| Comparing Sales Strategies Using the Markov Chain Relationship Model<br><b>Bocheng Chen</b> ( <i>China</i> ), <b>W.H. Ip</b> ( <i>Hong Kong, China</i> ), <b>Peng Sheng</b> ( <i>China</i> )<br><b>H.L. Yu</b> ( <i>Hong Kong, China</i> ) .....            | 266 |
| Consumers' Trade-Offs of Online Auctions Alternatives - An Application of Conjoint Analysis<br><b>Hector Mingta Tsai, Yichen Li</b> ( <i>Taiwan, China</i> ) .....                                                                                          | 272 |
| Cross-Cultural Differences of Online Store Image Perception and Customer Purchasing Intension<br><b>Qinyu Liao, J.P. Shim</b> ( <i>USA</i> ) .....                                                                                                          | 278 |
| E-Business Adoption in Marketing and Its Relationship with Factors in SWOT Analysis:<br>an Empirical Investigation of Small Software Businesses<br><b>Edward W.N. Bernroider, Alexander Hampel</b> ( <i>Austria</i> ) .....                                 | 284 |
| Extreme Availability: Determining the Limits of Availability in Commercial Systems<br><b>David W. Coleman, Todd W. Mummert</b> ( <i>USA</i> ) .....                                                                                                         | 290 |
| Impact of Internet Banking on Customer Satisfaction and Loyalty: A Conceptual Model<br><b>Thanh Nguyen, Mohini Singh</b> ( <i>Australia</i> ) .....                                                                                                         | 298 |
| Internet Shopping Behavior among Singaporeans: Gender and Educational Issues<br><b>Hui Tak Kee, David Wan</b> ( <i>Singapore</i> ) .....                                                                                                                    | 304 |
| Markov Chain-based Clustering Analysis of Customers and WebPages<br><b>Changshou Deng, Pie Zheng, Yanling Yang, Bingyan Zhao</b> ( <i>China</i> ) .....                                                                                                     | 309 |
| Modeling Competitive Diffusion Process in Japanese ADSL Service Market<br><b>Nozomi Nakajima, Jian Chen</b> ( <i>Japan</i> ) .....                                                                                                                          | 314 |
| Neural Networks Based Integrated Evaluation Method for the Effectiveness of CRM<br><b>Qingliang Meng, Qinghua Kong, Yuqi Han, Jie Chen</b> ( <i>China</i> ) .....                                                                                           | 320 |
| Successful Customer Relationship Management: Antecedents and Imperatives<br><b>Frederick L. Capossela</b> ( <i>USA</i> ) .....                                                                                                                              | 325 |
| Supporting Small Businesses' Penetration of New International Markets - Practitioner's Approach<br><b>Jaroslav Jandos</b> ( <i>Czech Republic</i> ) .....                                                                                                   | 329 |

|                                                                                                                                                                                                            |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| The Design of a Lean CRM Software Process Model<br><b>Bocheng Chen (China), W.H. Lp (Hong Kong, China), Yuebo Zhou, Bing Liang (China),<br/>H.L. Yu (Hong Kong, China)</b> .....                           | 335 |
| The Development of RFID in Healthcare in Taiwan<br><b>Frank Kuo, Yuehching Lee, Chuan Yi Tang (Taiwan, China)</b> .....                                                                                    | 340 |
| The Glance of an Observer on the War of Brands of Food Products<br><b>Carlos Alberto Gonçalves, Daniela Ferro de Oliveira, Renata Fabiana Ferreira,<br/>Karina A. Pereira Garcia Coleta (Brazil)</b> ..... | 346 |
| Theoretical Framework of Empirical Study on Consumer Behavior in Web-Based Commerce<br><b>Yuming Zhu, Peng Guo (China)</b> .....                                                                           | 355 |
| Willingness to Pay for Digital Services: Challenges for Future Research<br><b>Herbjorn Nysveen, Per E. Pedersen (Norway)</b> .....                                                                         | 359 |
| Working Mechanism and Structure of Customer Services Support System<br><b>Qingguo Wang, Shuqin Cai, Yuhua Zhou, Kaichun Liang (China)</b> .....                                                            | 364 |

### **PART III E-BUSINESS MODEL**

|                                                                                                                                                                                            |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| A Component-based Framework for Distributed Business Simulations in E-Business Environments<br><b>Alexander Hampel, Edward W.N. Bernroider (Austria)</b> .....                             | 370 |
| A Global Perspective of Business Usage of Web Technology<br><b>Chang Liu, Wayne Huang (USA)</b> .....                                                                                      | 376 |
| A Personalized Recommender System Based on Explanation Facilities Using Collaborative Filtering<br><b>Do Hyun Ahn, Hee Ae Lee (Korea)</b> .....                                            | 382 |
| A Process Model for Assessing the Distribution Options for Horizontal E-Business Portals<br><b>Tapati Bandopadhyay, Pradeep Kumar, Tapas Mahapatra (India)</b> .....                       | 388 |
| An Agile Protocol for E-Commerce<br><b>Yong Wang, Qianxing Xiong (China)</b> .....                                                                                                         | 393 |
| B2B Electronic Markets: A Conceptual Model for Analyzing the Sources of Business Value<br><b>Chia Yao Lee, Brian Corbitt (Australia)</b> .....                                             | 397 |
| Benefit Evaluation Model of E-Government Procurement<br><b>Mingzhu Jin, Xuping Jiang (China)</b> .....                                                                                     | 402 |
| E-business Value Process Modelling<br><b>Baolin Wu, Li Li, Yun Yang (Australia)</b> .....                                                                                                  | 408 |
| Evolution of Service Model and Architecture of ASP Business<br><b>Kang Rae Cho, Ho Joon Choi (Korea)</b> .....                                                                             | 414 |
| Integrated Optimization Model of Production Planning and Scheduling for Batch Production<br><b>Wenli Shang, Yushun Fan (China)</b> .....                                                   | 419 |
| Mapping from BPMN-Formed Business Processes to XPD L Business Processes<br><b>Moonyoung Jung, Hak Soo Kim, Myung Hyun Jo, Kyung Hyun Tak, Hyun Suk Cha,<br/>Jin Hyun Son (Korea)</b> ..... | 422 |
| Methodological Approach for Choosing Portfolio of E-Business Models<br><b>Ayoob Mohamadian, Fereidoun Ghasemzadeh, Emad Farazmand (Iran)</b> .....                                         | 428 |
| Rationality Validation of Business Process Model by Simulation Method<br><b>Ke Ning (Ireland), Yuliu Chen (China), David O'Sullivan (Ireland)</b> .....                                    | 435 |
| Research on Mobile Agent-based E-Commerce System Framework<br><b>Wenna Liu, Deli Yang (China)</b> .....                                                                                    | 440 |

|                                                                                                                                                |     |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Towards Collaborative Travel Recommender Systems<br><b>Cane Wingki Leung, Stephen Chifai Chan, Korris Fulai Chung (Hong Kong, China)</b> ..... | 445 |
| Web Service Based Universal Management of Workflow Resources<br><b>Jinyoung Jang, Yongsun Choi (Korea)</b> .....                               | 452 |

#### **PART IV E-BUSINESS MANAGEMENT AND STRATEGY**

|                                                                                                                                                                                           |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| A Comparative Analysis of International and Chinese Electronic Commerce Research<br><b>Junyong Xiang, Jaekyeong Kim, Hyouk O (Korea)</b> .....                                            | 460 |
| A Conceptual Framework for E-tailing Quality and Its Evaluation<br><b>Jing Wang, Zhenquan Sha, Haiyuan Wang (China)</b> .....                                                             | 466 |
| A Multi-Agent System for E-Business Processes Monitoring in a Web-Based Environment<br><b>Xinyu Zhao, Cen Wu, Runjie Zhang, Chen Zhao, Zuoquan Lin (China)</b> .....                      | 470 |
| A Study of Competences and Indicators for Electronic Commerce Professional Managers<br><b>Chihhung Wu, Wenchang Fang, Gaoliang Wang (Taiwan, China)</b> .....                             | 476 |
| A Study of Influencing Traditional Travel Agencies' Decision Making to Introducing B2C E-commerce<br><b>Chenyi Hsu, Yunghsin Wang (Taiwan, China)</b> .....                               | 482 |
| A Value Chain Based Analysis of Electronic Commerce's Transformation of China's Pharmaceutical Industry<br><b>Xiaochen Wang, Mingzhi Li (China)</b> .....                                 | 488 |
| An Exploratory Study of the Electronic Distribution of Hotel Rooms in Europe<br><b>David C Gilbert (UK), Liz Leekelley (UK), Dominic W Beveridge (Australia)</b> .....                    | 493 |
| An Initial Study on the Intensifying Enterprises Information Management<br><b>Peiji Shao, Jingjing Li, Jing Yang (China), Jie Wan (USA)</b> .....                                         | 499 |
| Antecedents of E-Business Assimilation in Manufacturing SMEs<br><b>Louis Raymond, Francois Bergeron (Canada), Sam Blili (Switzerland)</b> .....                                           | 505 |
| Business Drivers for Application Servicing and a Software-as-a-Service Model<br><b>Jiri Vorisek (Czech Republic)</b> .....                                                                | 511 |
| Comparison of E-Commerce Practices between Large Enterprises and Small to Medium Enterprises<br><b>Sehyung Cho, Yongkyun Chung, Seungchul Kim (Korea)</b> .....                           | 517 |
| Demonstrative Analysis of Hi-tech Enterprises Technology Innovation Capability Based on ISM<br><b>Yu Chang, Naiding Yang, Xiandong Liu (China)</b> .....                                  | 522 |
| Determinants of E-Commerce Adoption in SMEs<br><b>Pham Thi Thanh Hong (Japan), Nguyen B. Giang (Vietnam)</b> .....                                                                        | 527 |
| E-business Management System Based on Coordinated Center for Dealer<br><b>Ding Zhang, Jingwen An, Zhongqing Cheng (China)</b> .....                                                       | 533 |
| E-Business Oriented Optimal Online Auction Design<br><b>Anshi Xie, Yijun Li, Yong Li (China)</b> .....                                                                                    | 538 |
| Economies of Information Consumer Commodities - An Introduction to Conceptualising<br>Forms of Information Capitalism by Two Cases<br><b>Jussi Okkonen, Pasi Virtanen (Finland)</b> ..... | 544 |
| Effective and Strategic Use of Electronic Reverse Auctions<br><b>Chia Yao Lee, Brian Corbitt (Australia)</b> .....                                                                        | 550 |
| How E-Ready is E-Sri Lanka?<br><b>Velauthapillai Dhayalan, Reggie Davidrajuh (Norway)</b> .....                                                                                           | 556 |
| Internet Role in Lithuania SMEs Internationalization<br><b>Rimantas Gatautis (Lithuania), Panagiotis Damaskopoulos (France)</b> .....                                                     | 562 |

|                                                                                                                                                                                |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Investigating the Use of the Business Model Concept through Interviews<br><b>Alexander Osterwalder, Yves Pigneur (Switzerland)</b> .....                                       | 568 |
| Logistical Performance as a Key Factor of Success for European Food E-tailers—Three<br>Paradoxes and a Research Agenda<br><b>Dominique Bonet, Gilles Pache (France)</b> .....  | 574 |
| Research on Equipment and Spare Parts Management Based on Theory of Constraints<br><b>Yan Ye (China)</b> .....                                                                 | 581 |
| Semantic Innovation Management<br><b>Jianqiang Li, David O'Sullivan (Ireland)</b> .....                                                                                        | 586 |
| The Analysis of the Difficult Points on Developing E-Commerce of the Western Region in China<br><b>Luming Yang, Hongli Hu, Cuiping Zhu, Zhuqing Yang (China)</b> .....         | 591 |
| The Business Process Investigation in the Perspective of Customer Value<br><b>Ray Tsaih, Wanying Lin, Miaoju Hung, Yaling Cheng (Taiwan, China)</b> .....                      | 596 |
| The Internet and the Organizational Adoption of Electronic Business: A Research Agenda<br><b>Sanjiv D. Vaidya, Merlin Nandy (India)</b> .....                                  | 604 |
| Towards a Definition of IT Management Sophistication in Small Firms<br><b>Theekshana Suraweera, Paul Cragg, Annette Mills (New Zealand)</b> .....                              | 610 |
| Towards a Framework of Enterprise Integration: Linking Quality Management, Organizational<br>Learning and Information Technology<br><b>Jiunn Chieh Lee (New Zealand)</b> ..... | 616 |
| Towards Integrated Document Management in Networked Product Development<br><b>Hannu Laesvuori, Paavo Kotinurmi (Finland)</b> .....                                             | 622 |
| Transaction Governance Structure of Brick-and-Mortar and Click-and-Order: An Instrument<br>Design and Experimental Study<br><b>Aimao Zhang (USA)</b> .....                     | 628 |

## **PART V E-BUSINESS-BASED ORGANIZATION MANAGEMENT AND INNOVATION**

|                                                                                                                                                                |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| A Study on Design Process Integration between Marketing and R&D of Notebook<br><b>Linlang Tang, Yubin Chiu, Hungsheng Lin (Taiwan, China)</b> .....            | 634 |
| A Web-based Operation Management System for Distributed Divisional Organizations<br><b>Wei Shang, Yijun Li, Qiang Ye, Wenjun Sun (China)</b> .....             | 640 |
| Apply MDA to E-Business: MDA Based Workflow Solution as an Example<br><b>Jiawei Lee, Jungsing Jwo (Taiwan, China)</b> .....                                    | 646 |
| E-Alliances: Search and Match for Small Business Partnership<br><b>Alan Chonghua Guo (China)</b> .....                                                         | 650 |
| Exploring Sources of Competitive Advantages in E-business Application in Mainland Chinese Real<br>Estate Industry<br><b>Yan Tao, C. Matt Hinton (UK)</b> ..... | 655 |
| Research on Collaborative Commerce Model Based on Web Services<br><b>Liwen Wu, Yingqiang Duan (China)</b> .....                                                | 661 |
| Research on Modular Business Processes<br><b>Weihui Dai, Weidong Zhao (China)</b> .....                                                                        | 665 |
| Research on Multi-Agent Based Information Management Platform for Enterprise Business Cooperation<br><b>Haigang Li (China)</b> .....                           | 669 |
| Study of Cooperative Product Business Support Platform for New Product Development<br><b>Haigang Li (China)</b> .....                                          | 674 |

|                                                                                                              |     |
|--------------------------------------------------------------------------------------------------------------|-----|
| Supporting Collaborative Communication in a Multi-layer Meta-process Model for Evolutionary Shared Workflows |     |
| <b>Damien Bright, Gerald Quirchmayr, Roger Tagg (Australia)</b> .....                                        | 677 |
| Visionary Management: Footstone of Sustained Firm Growth                                                     |     |
| <b>Libing Shu, Shenghua Jia, Lei Peng (China)</b> .....                                                      | 683 |

## AUTHOR INDEX

## VOLUME II

### PART VI VIRTUAL ORGANIZATION MANAGEMENT

|                                                                                                                                |     |
|--------------------------------------------------------------------------------------------------------------------------------|-----|
| A Risk Identification Method of Virtual Enterprise                                                                             |     |
| <b>Min Huang, Fei Xu, Xingwei Wang (China), W.H. Ip, K.L. Yung (Hong Kong, China)</b> .....                                    | 687 |
| A VOC Based Approach to Support Virtual Organizations                                                                          |     |
| <b>Hua Zhou, Min Liu, Cheng Wu (China)</b> .....                                                                               | 692 |
| Refinement for Ontology Evolution in Virtual Enterprises                                                                       |     |
| <b>Li Li, Baolin Wu, Yun Yang (Australia)</b> .....                                                                            | 696 |
| Risk Evaluation for Virtual Enterprise                                                                                         |     |
| <b>Min Huang, Hongmei Yang, Xingwei Wang (China), W.H. Ip (Hong Kong, China), Dingwei Wang (China)</b> .....                   | 702 |
| Risk Sorting for Enterprise under EC Environments                                                                              |     |
| <b>Min Huang, Fenge Li, Xingwei Wang (China), W.H. Ip (Hong Kong, China)</b> .....                                             | 708 |
| The Research of Product Graphical Information Sharing Technology of Virtual Manufacturing Enterprise in E-commerce Environment |     |
| <b>Mingxu Ma, Haiyue Li, Wenlei Zhang, Chaowan Yin, Chengen Wang (China)</b> .....                                             | 713 |
| Virtual Enterprises Risk Management DSS under Electronic Commerce                                                              |     |
| <b>Min Huang, Hongmei Yang, Xingwei Wang (China), W.H. Ip, K.L.Yung (Hong Kong, China)</b> .....                               | 718 |
| Virtual Manufacturing and Virtual Spaces                                                                                       |     |
| <b>Mélissa Saadoun (France)</b> .....                                                                                          | 722 |
| Web Services - An Enabling Technology for Trading Partners Community Virtual Integration                                       |     |
| <b>Siew Poh Lee, Han Boon Lee, Eng Wah Lee (Singapore)</b> .....                                                               | 727 |

### PART VII MOBILE COMMERCE AND BUSINESS

|                                                                                                                          |     |
|--------------------------------------------------------------------------------------------------------------------------|-----|
| A Study of Behavioral Intention for Mobile Commerce Using Technology Acceptance Model                                    |     |
| <b>Yuchung Hung, Haoerl Yang, Chinghung Hsiao, Yunglu Yang (Taiwan, China)</b> .....                                     | 732 |
| Ambient E-Services: Framework and Applications                                                                           |     |
| <b>Yuanchu Hwang, Soetsyr Yuan (Taiwan, China)</b> .....                                                                 | 737 |
| An Extended Collaborative Filtering-based Recommendation Procedure for Multimedia Contents in M-commerce                 |     |
| <b>MeeYeon Kang, YoonHo Cho, JaeKyeong Kim (Korea)</b> .....                                                             | 746 |
| An Overview of the Impact of National Culture on the Adoption of Mobile Commerce                                         |     |
| <b>Nasrin Rahmati (Australia)</b> .....                                                                                  | 751 |
| Diffusion of Mobile Phones in Taiwan: An Evaluation of Influence Sources                                                 |     |
| <b>Hersen Doong, Yicheng Ku (Taiwan, China)</b> .....                                                                    | 757 |
| Explaining Intent of Adoption of Wireless Internet Services by Business Executives: The Case of Paris Airports' Hotspots |     |
| <b>Madeleine Besson, Olivier Epinette, Olivier Segard, Pierre Vialle (France)</b> .....                                  | 763 |

|                                                                                                                                                                                                         |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Extracting Requirements for Ubiquitous Computing Technology-based IS Using Factor Analysis<br><b>Natalia Em, Euiho Suh, Keedong Yoo (Korea)</b> .....                                                   | 768 |
| IEEE 802.20 Based Broadband Railroad Digital Network – The Infrastructure for M-Commerce on the Train<br><b>Fumin Zou, Xinhua Jiang, Zhangxi Lin (China)</b> .....                                      | 771 |
| Individual Telecommunications Tariffs in Chinese Communities: History as a Mirror of the Future,<br>and Relevance for Mobile Service Development in China<br><b>H. Chen, L-F Pau (Netherland)</b> ..... | 777 |
| Managing Critical Incidents in the Fine-Paper Supply Chain through Mobile Collaborative System<br><b>Vaida Kadyte (Finland)</b> .....                                                                   | 783 |
| MOBICORS-Movie: A MOBILE CONTENTS Recommender System for Movie<br><b>Jaekyeong Kim, Yoonho Cho, Seungtae Kim (Korea)</b> .....                                                                          | 789 |
| Mobile Payment System with Privacy Protection<br><b>Kuenliang Sue, Wanpu Hsieh (Taiwan, China)</b> .....                                                                                                | 795 |
| Physicians' Opinions of an SMS Professional Medical News Service: Insights from an SMS Survey<br><b>Shengnan Han, Pekka Mustonen, Matti Seppanen, Markku Kallio (Finland)</b> .....                     | 801 |
| Security Measures in Mobile Commerce: Problems and Solutions<br><b>Sanwar Ali (USA), Waleed Farag (Egypt), Mohammad A. Rob (USA)</b> .....                                                              | 807 |
| Simulating Collaborative Mobile Services - An Approach to Evaluate a New Location Enabling Service<br><b>Peter Dornbusch, Florian Fuchs, Martin Huber (Germany)</b> .....                               | 813 |
| Supporting Salespersons CRM Efforts through Location Based Mobile Support Systems<br><b>Chihab BenMoussa (Finland)</b> .....                                                                            | 820 |
| Technology Attribute-Diffusion Pattern Nexus: Evidence from the Early Experiences of<br>3G Mobile Communications<br><b>Nir Kshetri (USA)</b> .....                                                      | 827 |
| The Implementation of Signing E-Document by Using the Wireless Identity Module in Cellular Phone<br><b>Chengyuan Ku, Yenfeng Ho, Yiwen Chang (Taiwan, China)</b> .....                                  | 832 |
| The Quest for Mobility: Designing Enterprise Application Framework for M-Business Practices<br><b>Chianhsueng Chao (Taiwan, China)</b> .....                                                            | 838 |
| The Researches on the Mobile E-Business Implements and Mode in Small and Medium-sized Enterprise<br><b>Yingchun Wang, Changtong Wei, Zhuang Guan, Chunling Sun, Qiong Zhu (China)</b> .....             | 844 |
| Ubiquitous Computing Based Mobile Commerce: Toward the Ubiquitous Commerce<br><b>Sangjun Kim, Euiho Suh, Keedong Yoo (Korea)</b> .....                                                                  | 847 |
| User-Centered Guidelines for Design of Mobile Applications<br><b>Xiaowen Fang, Susy Chan, Jacek Brzezinski, Shuang Xu, Jean Lam (USA)</b> .....                                                         | 853 |
| Using System Dynamics to Model Mobile Commerce Diffusion<br><b>Wenqing Wang, France Cheong (Australia)</b> .....                                                                                        | 858 |

## **PART VIII TRUST AND REPUTATION MANAGEMENT**

|                                                                                                                                           |     |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----|
| From Control to Competition: Trust Institution in E-Business<br><b>Yunfu Huo, Deli Yang, Jianjun Wang, Qiong Guo (China)</b> .....        | 864 |
| Negative Reputation Rate as the Signal of Risk in Online Consumer-to-consumer Transactions<br><b>Dahui Li, Zhangxi Lin (USA)</b> .....    | 868 |
| Recent Trend of Ratings Business in Japan and Improving Proposal for Ratings Forecasting Model<br><b>Yoshikazu Sakamaki (Japan)</b> ..... | 874 |
| Security Alert Management in E-Business Networks<br><b>Allan Lam, Pradeep K. Ray (Australia)</b> .....                                    | 880 |

|                                                                                                                                               |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----|
| The Impact of a 'Theological' Web Interface on Trust in the Context of Electronic Commerce<br><b>Haytham Siala, Feroz Siddiqui (UK)</b> ..... | 886 |
| Trust for E-Business Management<br><b>Liaquat Hossain (Australia), Rolf T.Wigand (USA)</b> .....                                              | 893 |
| Trust Models in the E-Commerce Environment<br><b>Siddhi Pittayachawan, Mohini Singh (Australia)</b> .....                                     | 901 |

## **PART IX KNOWLEDGE MANAGEMENT IN E-BUSINESS**

|                                                                                                                                                                                                         |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| A Managers' Guide to KMS Adoption and Diffusion<br><b>Jun Xu, Mohammed Quaddus (Australia)</b> .....                                                                                                    | 908  |
| A Methodology to Support the Design and Deployment of Knowledge Management<br>within Inter- organizational Networks<br><b>Tomaso Forzi, Meikel Peters, Stefan Bleck (Germany)</b> .....                 | 915  |
| A Qualitative Approach to E-Learning? A Dynamic Situation in Montpellier Business School<br><b>Dominique Drillon, Eleni Boursinou (France)</b> .....                                                    | 921  |
| Adaptive User Interfaces for Intelligent E-Learning: Issues and Trends<br><b>Abdul Rahim Ahmad, Otman Basir, Khaled Hassanein (Canada)</b> .....                                                        | 925  |
| Computer-Mediated Communication and Innovation: Do Communication Media Properties<br>Influence Innovative Thinking Processes?<br><b>Leif Jarle Gressgård, Gunnar E. Christensen (Norway)</b> .....      | 935  |
| Corporate Mission and Vision and Customer Knowledge Management for Increasing<br>Competitive Advantages<br><b>Hwanyann Su, Yichen Lin, Chiuhua Lai (Taiwan, China)</b> .....                            | 941  |
| Design and Development of an E-Learning Management System<br><b>Chee Chern Lim, Man Hing Yu, Jesse J. Jin, Vera Chung (Australia)</b> .....                                                             | 947  |
| Effective E-Teaching: The Case of Hong Kong<br><b>Candy K. Y. Ho, Ivy Chan (Hong Kong, China)</b> .....                                                                                                 | 953  |
| E-Learning Performance and Students' Results Case of a French Business School<br><b>Emmanuel Houze, Regis Meissonier (France)</b> .....                                                                 | 958  |
| Electronic Disclosure and Financial Knowledge Management<br><b>Jerome Yen, Percy Yuen, Belinna Bai (Hong Kong, China)</b> .....                                                                         | 969  |
| From Idea to Knowledge—Generating New Knowledge on E-Business<br><b>Johanna Tommila, Anne-Mari Järvelin, Marko Seppä (Finland)</b> .....                                                                | 975  |
| Knowledge Management, As the Key Factor of Survival in New Competition Age<br><b>Masoud Karami Zarandi, Ehsan Ghaffari Cherati (Iran)</b> .....                                                         | 981  |
| Study on the Cultivation of Core Competence Based on Tacit Knowledge<br><b>Juanru Wang, Songzheng Zhao, Jin Yang (China)</b> .....                                                                      | 987  |
| The Relationship between Knowledge Sharing Behavior and the Effectiveness of Information<br>Systems Strategic Planning (ISSP): An Empirical Study in Taiwan<br><b>Jungchi Pai (Taiwan, China)</b> ..... | 990  |
| The Roots of the Uncertainty in the Enterprise Tech-innovation Process under the Net-environment<br><b>Xinghua Dang, Junfeng Jiang (China)</b> .....                                                    | 996  |
| Transformation & Countermeasures on Business Operation Models in Uncertain Environment<br><b>Baozhen Li, Nana Li, Xianfeng Liu (China)</b> .....                                                        | 1001 |
| What All Stakeholders Should Do: Creating E-learning Communities<br><b>Zheng Zhao, Runtian Jing (China)</b> .....                                                                                       | 1004 |

|                                                                                                                                                           |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| What E-learning Providers and End Users Should Do Respectively before Initiating Such a Learning Project<br><b>Zheng Zhao, Runtian Jing (China)</b> ..... | 1011 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------|

## **PART X INTERNET SECURITY AND PRIVACY**

|                                                                                                                                                                                                                                  |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| A High Performance XML Querying Architecture<br><b>Fangju Wang, Hui Shen (Canada)</b> .....                                                                                                                                      | 1019 |
| Application of Weighted Support Vector Machines to Network Intrusion Detection<br><b>Yinshan Jia, Chuanying Jia, Hongwei Qi (China)</b> .....                                                                                    | 1025 |
| Customers Confidence in E-business: An Evaluation of Australian Practices—A Case Study<br><b>Daniel Chandran (Australia)</b> .....                                                                                               | 1030 |
| Internet Security and Digital Certificates: How Much Do You Know about Them?<br><b>Nena Lim (Australia)</b> .....                                                                                                                | 1035 |
| Secure Mobile Agents in Electronic Commerce by Using Undetachable Signatures from Pairings<br><b>Yang Shi, Xiaoping Wang, Liming Cao, Jianxin Ren (China)</b> .....                                                              | 1038 |
| Security Service Model for RFID Enabled Supply Chain<br><b>Bo Chen, Hongying Gu, Oliver Wang (China)</b> .....                                                                                                                   | 1044 |
| Student Recognition and Awareness of Information Security in Course Learning from Management Information Systems and Computer Science Classes: An Empirical Investigation<br><b>Qinyu Liao, Xin Luo, Kirk Arnett (USA)</b> ..... | 1049 |

## **PART XI DECISION SUPPORT AND ANALYSIS TECHNIQUES**

|                                                                                                                                                                                                     |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| A Mediator to Integrate Databases and Legacy Systems: The Mediated Data Integration (MeDInt) Mediator<br><b>Chaiyaporn Chirathamjaree (Australia)</b> .....                                         | 1054 |
| A Multi-attribute Group Decision Approach Based on Rough Set Theory and Application in Supply Chain Partner Selection<br><b>Wenqi Jiang, Zhongsheng Hua (China)</b> .....                           | 1060 |
| A New Clustering Algorithm for Categorical Attributes<br><b>Chunbin Tang, Weidong Zhao (China)</b> .....                                                                                            | 1065 |
| A Personalized Commodities Recommendation Procedure and Algorithm Based on Association Rule Mining<br><b>Jianyi Zhang, Yunfeng Wang, Jie Li (China)</b> .....                                       | 1070 |
| A Practical Approach to Credit Scoring<br><b>Jae H. Min, Youngchan Lee (Korea)</b> .....                                                                                                            | 1075 |
| A Research on Chaos Forecast with the Capital Market Structure Model<br><b>Zhensheng Jiang, Xingchen Zheng, Gang Chen (China)</b> .....                                                             | 1081 |
| A Three-phased Online Association Rule Mining Approach for Diverse Mining Requests<br><b>Chingyao Wang, Shianshyong Tseng, Tzungpei Hong, Yianshu Chu (Taiwan, China)</b> .....                     | 1085 |
| A User Preference Classification Method in Information Recommendation System<br><b>Chentung Chen, Weishen Tai (Taiwan, China)</b> .....                                                             | 1091 |
| A Web-Based Decision Support Systems for The Chronic Deteriorating Diseases<br><b>Chichang Chang (Taiwan, China)</b> .....                                                                          | 1097 |
| An Ant-based Clustering Algorithm in Data Mining<br><b>Yong Tang, Yongkai Ma (China)</b> .....                                                                                                      | 1101 |
| An Interactive Web Meeting System Using Multicast Technology<br><b>Ook Lee (Korea)</b> .....                                                                                                        | 1106 |
| An Investment Decision Support System (IDSS) for Identifying Positive, Neutral and Negative Investment Opportunity Ranges with Risk Control in Stock Markets<br><b>Wanli Chen (Australia)</b> ..... | 1109 |

|                                                                                                                                                                                 |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Bayesian Network Induction With Incomplete Private Data<br><b>Justin Zhan, Liwu Chang, Stan Matwin (Canada)</b> .....                                                           | 1119 |
| Constructing Control Process for Wafer Defects Using Data Mining Technique<br><b>Leeing Tong, Hsingyin Lee, Chifeng Huang, Changke Lin, Chienhui Yang (Taiwan, China)</b> ..... | 1125 |
| Decision Making and Analysis for Unexpected Road Blockages<br><b>Bing Su, Yinfeng Xu (China)</b> .....                                                                          | 1130 |
| Discovering Fuzzy Functional Dependencies as Semantic Knowledge in Large Databases<br><b>Xue Wang, Guoqing Chen (China)</b> .....                                               | 1136 |
| E-Business Data Warehouse Design and Implementation<br><b>Xudong Chen (China)</b> .....                                                                                         | 1140 |
| Forecasting the Consumption for Electricity in Taiwan<br><b>Hsiaotien Pao (Taiwan, China), Tenpao Lee (USA)</b> .....                                                           | 1143 |
| Logistics Forecasting Using Improved Fuzzy Neural Networks System<br><b>Jianyu Zhang, Xuelel Pu, Sheng Li, Dan Yang (China)</b> .....                                           | 1147 |
| Maximising Technology Efficiencies for SMEs Using Computer Intelligence<br><b>Adrian Collins (Australia)</b> .....                                                              | 1151 |
| Mining the Change of Events in Environmental Scanning for Decision Support<br><b>Mengjung Shih, Duenren Liu, Churnjung Liao, Chinhai Lai (Taiwan, China)</b> .....              | 1156 |
| Monitoring the Supply of Products in a Supply Chain Environment: A Fuzzy Neural Approach<br><b>Chunling Liu, Bo Meng, Jizi Li (China)</b> .....                                 | 1162 |
| PATSEEK: Content Based Image Retrieval System for Patent Database<br><b>Avinash Tiwari, Veena Bansal (India)</b> .....                                                          | 1167 |
| Privacy-Preserving Collaborative Association Rule Mining<br><b>Justin Zhan, Stan Matwin, Nathalie Japkowicz (Canada), Liwu Chang (USA)</b> .....                                | 1172 |
| Privacy-Preserving Data Mining in Electronic Surveys<br><b>Justin Zhan, Stan Matwin (Canada)</b> .....                                                                          | 1179 |
| Proposal of Improving Model for Default Probability Prediction with Logit Model on<br>Non-Compensatory Rule<br><b>Yoshikazu Sakamaki (Japan)</b> .....                          | 1186 |
| Study of SOA Component Dynamic Scheduling Based on Mobile Agent Coalition<br><b>Tao He, Bin Tang, Leqiu Qian (China)</b> .....                                                  | 1193 |
| Temporal Association Rule Mining in China's Closed-end Fund Data<br><b>Ying Liu, Guoqing Chen (China)</b> .....                                                                 | 1197 |
| The Application of RFID in Emergency Medicine<br><b>Tsai W. C. , Frank Kuo, Yuehching Lee, F. Wu (Taiwan, China)</b> .....                                                      | 1201 |
| The Design of a Web Document Snapshots Delivery System<br><b>David Chao (USA)</b> .....                                                                                         | 1207 |
| Using Intelligent Agents to Build E-Business Software<br><b>Adrien Coyette, Manuel Kolp, Stéphane Faulkner (Belgium)</b> .....                                                  | 1213 |
| What Data Is Necessary to Data Mine for Knowledge?<br><b>Paul Alpar (Germany)</b> .....                                                                                         | 1219 |

## **PART XII P2P COMPUTING AND GRID COMPUTING**

|                                                                                                                                   |      |
|-----------------------------------------------------------------------------------------------------------------------------------|------|
| A User-oriented Contents Recommendation System in Peer-to-Peer Architecture<br><b>Hyeakyeong Kim, Jaekyeong Kim (Korea)</b> ..... | 1224 |
|-----------------------------------------------------------------------------------------------------------------------------------|------|