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Conference on Intellectual  
Capital, Knowledge  
Management &  
Organisational Learning**  
The Hong Kong Polytechnic University  
Hong Kong  
China  
**11-12 November 2010**

Edited by  
Professor Eric Tsui  
The Hong Kong Polytechnic University  
China

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## Contents

<b>Paper Title</b>	<b>Author(s)</b>	<b>Guide Page</b>	<b>Page No</b>
Preface		xi	vi
Biographies of Conference Chairs, Programme Chair, Keynote Speaker and Mini-track Chairs		xiii	vii
Biographies of contributing authors		xvi	viii
Knowledge Sharing: A Bibliometric Analysis of Open-Access Knowledge Management Journals	<i>Szarina Abdullah and Hazila Timan</i>	1	1
The Romanian Training Market in the Field of Human Capital Development : Case Study on the Impact of Universities as Training Programmes Suppliers on Regional Development	<i>Madela Abrudan and Anca Dodescu</i>	2	9
Optimized for Growth: Case Study of a Sales Organization	<i>Mary Adams and Verna Allee</i>	3	16
Building a Knowledge Management Model at Brazil's Embrapa (Brazilian Agricultural Research Corporation): Towards a Knowledge-Based View of Organizations	<i>Rivadavia Correa Drummond de Alvarenga Neto and Job Lúcio Gomes Vieira</i>	4	26
Framework for Managing National Research Project Records as Knowledge Assets: Integrated use of Lifecycle, Continuum and Ecosystem Knowledge Management Methodologies	<i>Xiaomi An, Andy Dawson, Xianyang Bai and Wang Wang</i>	5	37

<b>Paper Title</b>	<b>Author(s)</b>	<b>Guide Page</b>	<b>Page No</b>
Knowledge Management and Organizational Innovativeness in Iranian Banking Industry	<i>Maryam Bidmeshgipour, Rosmini Omar and Wan Khairuzzaman</i>	5	47
Communicating Intangibles Prior to Assets: The Traces of Knowledge	<i>Daniel Brännström</i>	7	61
Developing a Knowledge Management Maturity Model Towards Government Organisations Competitiveness	<i>Mohamed Buheji and Jamal Al-Zayer</i>	8	68
Knowledge Management in Professional Soccer	<i>Oswaldo Cairó and Juan Bottinelli</i>	8	79
Application of IT Tools in KMS Within a Social Ecology	<i>Oswaldo Cairó and Nora Tejada-Hernández</i>	9	87
Capturing and Reporting of Structural Capital in the Quality Management Process: A Case Study in a Batteries Manufacturing Company	<i>Percy Chi Wai Chan and W.B. Lee</i>	10	95
Information Seeking Behavior of Police Officers in Hong Kong: An Exploratory Study	<i>Kwai Nga Laam Chan, Apple Chan Kwan Yi, Jasmine Fu Ho Ching and Peter Warning</i>	11	108
Performance of the Operational Headquarters eBusiness on the war Room Process	<i>Lin Yao Chin and Tsai Ping Heng</i>	12	122
International Strategic Alliance and Organisational Learning: Factors for Promoting Learning: A Malaysian Case	<i>Zuraina Dato Mansor</i>	12	130

<b>Paper Title</b>	<b>Author(s)</b>	<b>Guide Page</b>	<b>Page No</b>
The Intelligent Enterprise: Knowledge-Driven Category Management	<i>Basel Dayyani</i>	13	138
An Examination of two Grand-Theories of IC as Barriers to the use of IC Concepts	<i>John Dumay</i>	13	146
Knowledge Transfer and Relationship Building Among Students, the Small Business Community and the University	<i>Lian Dumouchel</i>	14	154
Management of Innovation in Hospitals: From the Introduction of a new Health Information Technology to Organizational Performance	<i>Pouyan Esmaeilzadeh, Murali Sambasivan and Naresh Kumar</i>	15	161
Intellectual Capital and Knowledge Management Practices in Health Systems	<i>Paula Pinto Ferreira, Paulo Pinheiro, Ricardo Rodrigues and Rui Pinto</i>	16	170
Learning and Knowledge in the context of Absorptive Capacity	<i>Manuel Fialho Franganito</i>	16	178
Post-Merger Knowledge Transfer: Examining Antecedent Structural Complexity	<i>Terrill Frantz and Kathleen Carley</i>	17	190
Identification and Classification of R&D Managers' Tacit Knowledge: Case Study of an R&D Institute, Active in the oil, gas and Petrochemical Industry	<i>Hosseini Ghasemi, Nazanin Gholami and Babak Akhgar</i>	18	200
Knowledge Management, an Enduring Fashion	<i>Kenneth Grant</i>	19	207

<b>Paper Title</b>	<b>Author(s)</b>	<b>Guide Page</b>	<b>Page No</b>
Smarter Innovation Networks in Enterprises	<i>Xin-jian Gu, Feng Dai, Lu-sha Zhen, Wei Zhang, Qiu-Hao Yang, Ye Zhang and Chen-Yong Du</i>	20	221
The Formulaic and Embryonic Dimensions of Knowledge Management Strategy: A Social Practice Perspective	<i>Yassaman Imani</i>	21	229
Culture vs. Cultures of Innovation: Conceptual Framework and Parameters for Assessment	<i>Giedrius Jucevičius</i>	22	236
The Role of Image and Reputation as Intangible Resources in Non-Profit Organisations: A Relationship Management Perspective	<i>Eric Kong and Mark Farrell</i>	23	245
An Organizational Learning Method Developed by Extracting Organizational Knowledge Based on an Analysis of Activity Logs	<i>Aoyama Kouji, Watanabe Shunichi and Obata Akihiko</i>	24	253
On Possibilities to Develop Cross-border Knowledge Region: The Case of Tallinn (Estonia) and Helsinki (Finland)	<i>Merle Krigul</i>	25	261
Use of Market Mechanisms for Election Outcome Prediction	<i>Richard Lackes, Erik Frank and Chris Börgermann</i>	26	269
Knowledge Creation Through Development Projects	<i>Erik Laursen</i>	27	277

<b>Paper Title</b>	<b>Author(s)</b>	<b>Guide Page</b>	<b>Page No</b>
Free and Open-Source Software is not an Emerging Property but Rather the Result of Studied Design	<i>Paolo Magrassi</i>	28	285
Critical Evaluation of Strategies for Value Creation in Knowledge Driven Organisations	<i>Pascal Massawe Anne James and Alison Todman</i>	28	293
Reporting of Intellectual Capital from the Romanian Companies' Perspective	<i>Maria Cristina Morariu</i>	29	302
Investigating Knowledge Management Systems Development In Practice: A Case Study of a Small Marketing Consultancy	<i>Aboubakr Moteleb, Mark Woodman and Daniel Cudjoe</i>	30	311
Knowledge-Intensive Collaboration to Combat Cyber Crime in the Asia Pacific Region	<i>Daniel Ng and Eric Tsui</i>	31	323
The Choice of Intellectual Capital Statements in Systems Integration in a Leading High-Tech Company	<i>Mauro Paoloni, Paola Paoloni, Paola Demartini, Maria Vittoria Guidotti and Massimiliano Celli</i>	32	331
Communication and Knowledge-Sharing Set-ups Within International Engineering Companies	<i>Dan Paulin</i>	33	341
Networks of Interorganisational Knowledge Development Within the Open Innovation Context: The Case of R&D Intensive Start-ups	<i>Monika Petraitė and Brigita Janiūnaitė</i>	34	351

<b>Paper Title</b>	<b>Author(s)</b>	<b>Guide Page</b>	<b>Page No</b>
Acquisition of Experience-Based Knowledge from the Swedish Armed Forces International Missions; a Comparison Between Groups and Individuals	<i>Ulrica Pettersson</i>	36	360
Resource Scarcity in the Context of Access to Information in the Knowledge Economy and its Impact on Technological Progresses	<i>Melinda Plescan and Andrei Stefan Nestian</i>	37	367
Intellectual Capital Performance and Government Ownership: An Analysis of Indonesian Banks	<i>Ronny Prabowo and Like Soegiono</i>	37	373
How do key Performance Indicators Metrics Help Advance Knowledge Management and Ensure its Sustainability?	<i>Mohamed Rabhi</i>	38	381
Identifying Stakeholders in the Andalusian Agency of Health Care Quality	<i>Víctor Reyes-Alcázar, Marta Casas-Delgado and Antonio Torres-Olivera</i>	39	387
The Board of Directors, Executives and Risk Knowledge Management	<i>Eduardo Rodriguez, John Edwards and David Koenig</i>	40	394
An Empirical Test of the Knowledge Management Life Cycle Model at a Turkish Petroleum Oil Industry Firm	<i>Mustafa Sagsan and Kursat Zorlu</i>	41	405
The Development of an Intellectual Capital Index for Malaysian Companies	<i>Amanuddin Shamsuddin, Zubaidah Zainal Abidin and Huang Ching Choo</i>	42	414



<b>Paper Title</b>	<b>Author(s)</b>	<b>Guide Page</b>	<b>Page No</b>
Investigation of the Communities of Practice in MTR Corporation's iShare Portal	<i>Andreas Sher, Byron Tse, Danal Blessis and Donald Yu</i>	43	421
Knowledge Barriers When Launching new Telecommunications for Public Safety	<i>Kaj Suneson and Ilona Heldal</i>	44	429
An Empirical Study of Knowledge Management Effectiveness and Organizational Innovation in Malaysian Manufacturing Firms	<i>Cheng Ling Tan and Aizzat Mohd Nasurdin</i>	45	439
The Contribution of Knowledge Management to eBusiness Activities	<i>Flávio Tiago, Teresa Borges Tiago, João Pedro Couto,</i>	46	448
The Management of Academic Knowledge Based on Organizational Learning	<i>Vladimir Tikhomirov, Natalia Tikhomirova, Valentina Maksimova and Yuriy Telnov</i>	46	458
Knowledge Management on Student Centered Learning Methods	<i>Nurhayat Varol</i>	47	466
Social Network Analysis: A Case Study in Turkey	<i>Asaf Varol and Ozgur Aydin</i>	48	471
Universities' Organizational Learning Rate Dependence on the Level of Participation in the Higher Education Market: The Case Study of Estonia	<i>Karen Voolaid and Üllas Ehrlich</i>	49	480
Academic Vocational Training: Searching for a new Paradigm	<i>Søren Willert, Hanne Dauer Keller and Nikolaj Stegeager</i>	50	489

<b>Paper Title</b>	<b>Author(s)</b>	<b>Guide Page</b>	<b>Page No</b>
Intergenerational Knowledge Transfer in the Workplace: a Sociological Perspective	<i>Wang Xin and Dong Xiaoying</i>	50	498
Case Study of Knowledge Management in the China Academy of Launch Vehicle Technology	<i>Zhang Ye, du chen-yong, Zhang Tao, Zhao Wen, Peng Jian, Dong Jian-feng</i>	51	507
Using Risk Assessment Technique to Consolidate Indicators in IC Process: Case Study of Suanboonyophatham School	<i>Pitipong Yodmongkon</i>	52	514
Communities of Practice for Open Innovation: Enabling Organizational Creativity?	<i>Anna Yström, Susanne Ollila, Tobias Fredberg and Maria Elmquist</i>	53	524
Social Technographics and Business Strategies	<i>Li-Zhong Zhang</i>	54	531
A Study of the Similarity in Mental Models and Team Performance	<i>Tracy Zou and W. B. Lee</i>	54	536
<b>PhD Research Papers</b>			
Organisational Cultural Values for Successful Knowledge Sharing: The Case of Malaysia	<i>Hayati Abdul Jalal, Paul Toulson, David Tweed</i>	59	547
Intellectual Capital Reporting: An Innovative Model to Represent Company's Invisible Asset	<i>Domenico Celenza, Fabio Nappo and Rosa Lombardi</i>	60	555
Distributed leadership in Communities of Practice: The Case of the United Nations	<i>Nima Fallah</i>	60	567

<b>Paper Title</b>	<b>Author(s)</b>	<b>Guide Page</b>	<b>Page No</b>
The Impact of HRM Practices on Organisational Capability Mediated by Knowledge Sharing: A Conceptual Model	<i>Salman Iqbal<sup>1</sup>, Paul Toulson and David Tweed</i>	61	575
The Moderating Effect of Organisation Culture on Intellectual Capital and Organisational Effectiveness Relationships	<i>Amrizah Kamaluddin and Rashidah Abdul Rahman</i>	62	584
Demystifying Organizational Learning: A Case Study of IBM's Corporate Volunteer Program	<i>Ayse Kok</i>	63	596
Tacit Knowledge in Nuclear Power Plants: Content, Characteristics and Sharing	<i>Tanja Kuronen-Mattila</i>	64	605
Cross-Border Cooperation: Organisation's Role in Enhancement of Knowledge and Innovation in a Region	<i>Katri-Liis Lepik</i>	65	613
Phenomena Driving Knowledge Management Practice	<i>Patrick Onions</i>	66	618
From intangibles Identification to Requirements for Intangibles Management	<i>Diana Penciu Marie-Hélène Abel and Didier Van Den Abeele</i>	67	628
Intellectual Capital Efficiency in Malaysian Public Companies: A Longitudinal Study	<i>Azlina Rahim, Ruhaya Atan and Amrizah Kamaluddin</i>	68	635
The Meaning of Social Interaction within Open Innovation Projects in an Academic Context	<i>Kati Vehmas</i>	69	644

<b>Paper Title</b>	<b>Author(s)</b>	<b>Guide Page</b>	<b>Page No</b>
An Empirical Study of the Impact of Intellectual Capital Performance on Business Performance	<i>Ka Yin Yu, Hing Tai Ng, Wai Kwan Wong, Kai Wah Samuel Chu and Kin Hang Chan</i>	70	650
<b>Work in Progress</b>			
Consulting Engineering Firms as Learning Organization	<i>Mohammad Hussein Mortazavi</i>	<b>75</b>	663
<b>Round Table</b>			
The future of IC and how will we get there	<i>Mary Adam and John Dumay</i>	79	
<b>Presentation Only</b>			
Enhancing Stakeholders Involvement in Knowledge Translation Activities in the OHS Research Environment	<i>Louis Lazure, Charles Gagné and Denis Denys</i>	83	
<b>Poster</b>			
Management of Legal Information in an International Context: A Conundrum of Challenges and Opportunities	<i>Joan Howland and Chang Wang</i>	87	

## Preface

This is the proceedings of the 7th International Conference on Intellectual Capital, Knowledge Management and Organisational Learning (ICICKM 2010) hosted this year by the Hong Kong Polytechnic University. The Conference Chair is Professor W.B. Lee and the Programme Chair is Eric Tsiu, both from the Hong Kong Polytechnic University. The opening keynote address is given by Leif Edvinsson on the topic of *The rising intellectual capital in China -what causes the phenomenological economic potential and growth*. The second day of the conference will be opened with a keynote from Stephen Selby, Director of Intellectual Property Department of HKSAR Government in Hong Kong. Stephen's topic is *Selling the ICM Concept to the Community*. A key focus of this Conference is for individuals concerned with current research findings and business experiences from the wide community which is now involved in knowledge management and intellectual capital and organisational learning to come together to share knowledge with peers interested in the same area of study. The papers published in these proceedings are a clear indication of how the subject has matured and continues to evolve since the first conference seven years ago.

The conference has been further enhanced by 4 mini tracks on the topics of:

**Communities of practice: The role of leaders and managers in the process of creativity and innovation** (Chaired by Nima Fallah, University of Strasbourg, France); **Risk Knowledge Management** (Chaired by Eduardo Rodrigues, IQ Analytics, Ottawa, Canada); **Inter-organisational Learning** (Chaired by Esra Bektas, Delft University of Technology, The Netherlands); **Crossing the Chasm: Moving IC into the Business Mainstream** (Chaired by Mary Adams, Trek Consulting, Massachusetts, USA)

With an initial submission of 199 abstracts, after the double blind, peer review process there are 65 academic papers, 13 PhD papers and 1 work in progress papers published in these Conference Proceedings. These papers represent research from some 31 different countries, including Australia, Bahrain, Brazil, China, Denmark, Estonia, Finland, France, Germany, Hong Kong, India, Indonesia, Iran, Italy, Japan, Lithuania, Malaysia, Mexico, New Zealand, Portugal, Romania, Russia, Saudi Arabia, Spain, Sweden, Taiwan, Thailand, Turkey, United Arab Emirates, United Kingdom and the USA.

I hope that you have an enjoyable conference.

Professor Eric Tsiu  
Programme Chair  
November 2010

# Biographies of Conference Chair, Programme Chairs and Keynote Speakers

## Conference Chair



**Prof. W.B. Lee** is Director of the Knowledge Management Research Centre of The Hong Kong Polytechnic University. Prof. Lee is the editor of the Journal of Information and Knowledge Management Systems, and International Journal of Knowledge and Systems Science. He established the Knowledge Solution Laboratory, the first of its kind in Hong Kong and has pioneered research and practice of knowledge management and knowledge audit in various organizations. Prof. Lee and his team have launched Asia's first on-line MSc. Program in Knowledge Management. His research interest includes manufacturing systems, knowledge management, organizational learning and intellectual capital-based management.

## Programme Chair

**Prof. Eric Tsui** In his academic capacities, Eric has designed and delivered KM, AI, BPR, Portal, BPM, and MIS courses at the University of Sydney, University of Technology, Sydney, University of New South Wales, RMIT University, University of Kentucky, Stellenbosch University, The Hong Kong Polytechnic University, and City University of Hong Kong. He is the program leader of Asia's only master degree in Knowledge Management which is delivered in a blended learning environment. He is a recipient of the High Impact Award 2008 and a finalist of the Teaching and Learning Innovation Award 2009 at The Hong Kong Polytechnic University. He has B.Sc. (Hons.), PhD and MBA qualifications



## Keynote Speakers



**Stephen Selby** joined the Hong Kong Government in 1978. He became the Director of Intellectual Property in 1994. Mr Selby heads a government department of about 170 staff, responsible for maintaining the Hong Kong SAR's Trademarks, Designs and Patents Registries. The Department is also responsible for the promotion of Intellectual Property protection in the Hong Kong SAR, and for the preparation and maintenance of legislation to protect intellectual property in line with international standards and norms. Mr Stephen Selby served as Chair of the APEC Intellectual Property Experts' Group (IPEG) from 2008 – 2010.

**Professor Leif Edvinsson** is a key pioneering contributor to the theory of Intellectual Capital and sometimes named as the Grandfather of IC. As the world's first director of IC in 1991 he initiated the creation of the world's first public corporate Intellectual Capital Annual Report 1994, and inspired the development ever since on IC metrics. He was parallel to that starting the Skandia Future Center as a Lab for Organisational design, one of the very first in the World in 1996, and now being followed by many in various parts of the world. Since 2000 he has been the Honorary Chairman of the UK based Henley College, KM Forum. Since 2000, he has been the world's first Professor, adjunct at Lund University on Intellectual Capital. In January 2006, he was also appointed professor adj. at The Hong Kong Polytechnic University, and later promoted to Chair Professor in 2007.

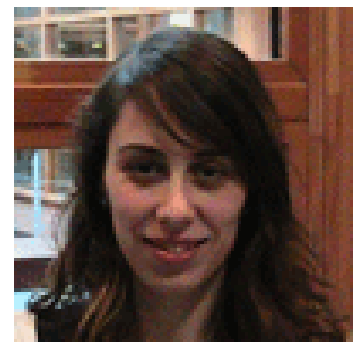


### **Mini Track Chairs**



**Mary Adams** is the co-author of *Intangible Capital: Putting Knowledge to Work in the 21st Century Organization*, in markets from Praeger/Greenwood Press in May, 2010. She is also the author of the Smarter Companies Blog and the creator of the IC Knowledge Center, an on-line community with open resources and discussions about intangible capital. At I-Capital Advisors, she helps companies grow by leveraging their intangibles. Prior to starting her consulting business, Mary had a fifteen-year career as a high-risk lender at Citicorp and Sanwa Business Credit. You can contact Mary at [adams@i-capitaladvisors.com](mailto:adams@i-capitaladvisors.com).

**Esra Bektas** is currently undertaking her PhD research in Design and Construction Management Section of the Real Estate and Housing Management Department, in TU Delft. She has a bachelor degree on architecture from Gazi University of Ankara, Turkey and a Master of Science degree from Erasmus University of Rotterdam and Lund University, Sweden. Before involving her PhD research in TU Delft, she worked six years in total in architectural practice. She specialized on designing large scale building projects in Turkey, Kosovo, Pakistan and Dubai since 2005. In September 2007, she was appointed to her PhD Research; “design knowledge integration in large scale building projects” in Delft University of Technology. In her research, she has worked with Arup London Office and the DHV Group, a global provider of consultancy and engineering services in the Netherlands.





**Nima Fallah** is a Ph.D. candidate at the University of Strasbourg in the field of Management of Innovation. He holds a Bachelor in Computer science (Iran) and Master of Strategic Marketing (Cranfield - UK); has experienced working with different UN agencies such as ITU in Geneva , UNECA in Addis Ababa, UNIDO and UNDP in Tehran; member of organizing committee of ACDD 2010 Strasbourg University; International correspondent of La Gazette Cournot; Chairperson of innovation sessions at ACDD 2009 University of Strasbourg.

**Eduardo Rodriguez** has over twenty years of management experience in the insurance and banking industry working on top management and analytics positions. Currently, he is Principal of IQAnalytics in Canada, Director of PRMIA (Worldwide Professional Risk Managers Association) Ottawa's Chapter, Director of the Strategic Intelligence and Risk Program at the UNAD National Open and Distance University in Colombia S.A., Quantitative Analyst at EDC Export Development Canada in Ottawa. He possesses a bachelor's degree in Mathematics, an MBA, an MSc Degree in Mathematics, certification from the Advanced Management Program at McGill University and currently he is a PhD Candidate at Aston Business School in the UK writing his thesis in the field of Knowledge Management applied to Enterprise Risk Management.



## **Biographies of contributing authors (in alphabetical**

**Szarina Abdullah**, PhD Information and Library Science (University of Illinois, Urbana-Champaign), M.L.S (Hawaii), B.A. Honors (Chulalongkorn). Professor Szarina Abdullah is currently attached to the Faculty of Information Management, Universiti Teknologi MARA (UiTM), Shah Alam, Selangor, Malaysia. Her areas of teaching and research include Bibliometrics, Citation Studies, Information and Knowledge Management, and Information Literacy Measurement.

**Madela-Maria Abrudan** is senior lecturer PhD., Chief of Management-Marketing Department, University of Oradea, Faculty of Economics. Area of research: Human Resources Management and Project Management. Manager of project titled: Training and Excellence Centre in Human Resources Management.



**Kouji Aoyama** is a researcher of Knowledge Research Center at Fujitsu Laboratory. He received his Master degree of computer science in 2000 from the University of Shizuoka, where he had several experience of usability testing for User Interface Design. He joined Fujitsu laboratories, and engaged in developing methodologies to promote organizational learning.

**Rivadavia Drummond de Alvarenga Neto** is Professor at Fundação Dom Cabral, Brazil. He holds a PhD in Information Science and in 2009 he was a Post-Doctoral Fellow and Visiting Scholar at the Faculty of Information Studies at the University of Toronto, Canada (where he's also a member of the KRMC (Knowledge Management Research Centre).

**Xiaomi An**, Ph.D. is Professor of Key Laboratory of Data Engineering and Knowledge Engineering (Ministry of Education) and the School of Information Resources Management at Renmin University of China. Project leader of ISO/TC46/SC11 WG8. Published 154 papers and 12 books awarding 17 certificates of academic merit. Research field: records and knowledge management, information resources management.

**Basel Dayyani** PhD has worked in the US software engineering industry for over 20 years in the Silicon Valley, California, USA and NASA. Dr. Dayyani worked in different engineering and business fields and currently he is the director of the Center of Applied Software Technology and an associate professor at the American University in Dubai.

**Maryam Bidmeshgipour** is a Phd candidate at the faculty of management and human resource development at the University Teknologi Malaysia (UTM). She has done her MBA at international business school (IBS) at UTM. Currently, she is currently working on SHRM and its relationship with business performance for her thesis.

**Daniel Brännström** is a Ph D student at Uppsala University. His research concerns Intellectual Capital, financial reporting and the interaction between financial accounting and law. The current focus is on accounting for intangibles, especially principles for accounting regulation and the application of regulation in practice.

**Danal Blessis** is responsible for Knowledge and Information Management in MTR Corporation's Projects Division, cultivating a culture of knowledge sharing to help deliver over HK\$100 billion in railway extensions over the next 10 years. He is a trained civil engineer with 28 years experience in the railway and electric utility industries in USA and Hong Kong.

**Mohamed Buheji** is Currently a student of Brunel University – Business School as a 3rd year PhD student with thesis working area focus on

Knowledge Management applications in Governmental Organisations. Mohamed been a management consultant in the last 15 years, currently he is the Bahrain Centre of Excellence leading Expert where application of knowledge and change management.

**Domenico Celenza** is a researcher at the University of Cassino. His scientific activity has focused on issues of corporate governance, the knowledge economy, international accountancy and economic evaluation, including results emerging from empirical studies.

**Percy Chan** is an EngD candidate of the Department Industrial and Systems Engineering of the Hong Kong Polytechnic University and the Quality Director of GP Batteries International Limited. His research interests include intellectual capital management, knowledge management, knowledge audit and quality management. He has MSc Degrees in quality management and materials technology respectively.

**Zuraina Dato Mansor** is a Senior Lecturer in the Department of Management and Marketing, University Putra Malaysia, specializing in International Business and organizational learning. Taught a Human resource management course and currently is coordinator for the course at the department. Has PhD in international business and learning process from Huddersfield University, (2006) and MBA from University of Birmingham,(1998), UK. Actively involved in writing articles some having been published by local and international journals.

**Paola Demartini** is Associate Professor at the University of Rome 3. She is executive Editor of the review Small Business/Piccola Impresa and vice president for Italy of the European Council for Small Business (ECSB). Her research interest includes small business management, corporate financial communication and intellectual –based management.

**John Dumay**,MBA AGSM,MA MGSM,PhD (Economics) Sydney- Currently Lecturer in Accounting at Sydney University after spending 15 years as an independent consultant specialising in management Accounting. PhD won the prestigious Emerald/EFMD Outstanding Doctoral Research Award 2008 in Knowledge Management category. Research/consulting activities concentrate on use of narrative as a management tool for organisations, assisting understanding of who they are and how to progress. Work extends to change and implementation management programmes within accounting departments, has been presented at numerous international conferences and published in important international academic journals.

**Lian Dumouchel** teaches in the areas of entrepreneurship, innovation, new product development and marketing at Thompson Rivers University,

Kamloops, Canada. Her research interests include curriculum development, inter-cultural communication, internationalizing education, entrepreneurship, innovation, knowledge transfer and product development within small firms. In April, 2010 she was awarded the TRU Teaching Excellence Award.

**Pouyan Esmailzadeh** gained his Bachelor's degree in Industrial Engineering – Industrial Technology from the Azad University - South Tehran Branch. He holds an MBA from Carlton University in Canada and is currently studying for a PhD in Strategy Management at the University Putra Malaysia. His research interests are in Organizational Behavior, Organizational Theory, Management of Information Systems, Strategy Management, Innovation Management and Hospital Management.

**Paula Pinto Ferreira** is a Pediatric Nurse and PhD student at the Beira Interior University (UBI), Business & Economics Department, Portugal. Research interests include Knowledge Management, Hospital Management and medical emergencies and urgencies. Paula is Ph.D. student Management (UBI) and author of several publications including national and international journals and conference proceedings

**Rui Manuel Fialho Franganito.** Institution: Instituto Superior de Contabilidade e Administração de Lisboa Instituto Politécnico de Lisboa. Professor. Research Area: Organizational Behavior. Academic Background: BA - Business Major - City University of New York, USA . Masters - Strategic Management - Technical University of Lisbon, Lisbon. PHD - Strategic Management - University of Seville, Spain.

**Terrill Frantz** specializes in the behavioral dynamics of post-merger integration by applying the network paradigm to the socio-technical perspective of organizational behavior and change. He is a Ph.D. student at Carnegie Mellon University, in Pittsburgh, PA, USA, where he works in the Center for Computational Analysis of Social and Organizational Systems.

**Hossein Ghasemi** is a manager of knowledge management in Research Institute of Petroleum Industry with strong academic background in management and engineering resulting from a master's degree in IT Management from UT the first ranked university in humanitarian sciences in Iran and a bachelor's degree in Industrial Engineering from IUST one of Iran's top rank Engineering university.

**Ken Grant** is a professor and the Faculty Teaching Chair in the Ted Rogers School of Management at Ryerson University, Toronto, Canada. Prior to joining the School he held partner-level positions in management consulting with AT Kearney and KPMG. His teaching and research focus is on Strategy and Innovation, eBusiness and Knowledge Management.

**Xin-jian GU** - PhD and professor □ Director of laboratory for advanced manufacturing and management, institute of contemporary manufacturing engineering, Zhejiang University Deputy Director of research center for innovation management and sustained competition capability, director of institute for strategic studies of knowledge, patents, and standard, Zhejiang University

**Ilna Heldal** is an associate professor at the Department of Technology Management, Technology & Society, Chalmers University in Gothenburg, Sweden. She completed her PhD on the usability development for Collaborative Virtual Environments. She is currently interested in how collaborations can be supported by visualization technologies.

**Ping Heng Tsai** is a Ph.D. candidate who studies in Dept. of Information Management of Yuan Ze University. He is researching in supply chain issue for a while. His recent research interest have focused on the how headquarter played a integrating, collaboration, and centralization role to coordinate the multinational corporations and their impacts on supply chain network.

**Nora Tejeda Hernández** obtained a degree in Thelematics Engineering from ITAM in Mexico City, where she currently lives. Nora is interested in the study of the social environment regarding the use of technology and the impact of technology on economic, business, social and cultural dynamics.

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# Knowledge Sharing: A Bibliometric Analysis of Open-Access Knowledge Management Journals

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**Abstract:** *Background* - The multidisciplinary nature of Knowledge Management (KM) as a field of study has been the topic for investigation by previous researchers in traditional published journals and books, but not in the newly-emerged channel of open access journals (Ponzi and Koenig 2002, Wilson 2002, Serenko and Bontis 2004, Schlogl 2005, Timonen and Paloheimo 2008). Recently, the rapid growth of online open access journals across all fields of knowledge has also seen 4 electronic journals covering the field of KM. This growth of KM open access journals signals an important development of the discipline, that of knowledge sharing – one of the principles much advocated by interested parties in the field of KM. *Aim of the study*- This paper examines the various characteristics of KM literature that is shared on open access journals in order to identify certain growth pattern, subject components, authors and organizations contributing to the literature, and the extent of internationalization as well as collaboration among authors in the field of KM. *Method*- The study employs the bibliometric approach to analyze characteristics of articles published in the 4 KM open access journals from the first issue in 1998 up to Dec 2009. These journals are: *Electronic Journal of Knowledge Management (EJKM)*, *ActKM Online Journal of Knowledge Management*, *Journal of Knowledge Management Practice (JKMP)*, and *Interdisciplinary Journal of Information, Knowledge and Management (IJIKM)*. *Research Questions*-The study seeks answers to the following research questions: To what extent is the multidisciplinary aspect of KM in terms of subject components? Who are the authors, countries and organizations contributing to the growth of open access KM literature? What is the extent of internationalization and author collaboration in KM as a field of research? *Significance of findings*- The findings should add a new perspective to our understanding of KM and widens our knowledge about the various subjects that make up the field of KM, about the many authors and organizations that have been active in the growth of KM literature in the open access. The fact that more articles are published via open access journals is also a reflection of the practice of knowledge sharing on the rise, the practice befitting the principle of KM.

**Keywords:** knowledge management online journals, open access knowledge management; knowledge management bibliometric analysis, author collaboration knowledge management, internationalization knowledge management, knowledge management multidisciplinary analysis

# **The Romanian Training Market in the Field of Human Capital Development : Case Study on the Impact of Universities as Training Programmes Suppliers on Regional Development**

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**Abstract:** The present paper underline how universities can become multipliers of human capital development and, through this, of regional development by highlighting the differences between human resources development and human capital development concepts and looking at the human capital development as a dynamic and fresh approach. This implies mixing innovation with traditional methodologies, mixing individual performance with work in partnership and cultural challenges, adapted for ever changing marketplace and compulsory oriented to regional development. First part, based on radiography of the Romanian training market, presents issues related to the specific training programmes developed in the Romanian organizations, problems faced by major players in this market and training methods most frequently used. The second part of the paper presents a study case and conclusions resulted from the empirical research pursued by the authors after the experience gained in the project: *Training and Excellence Centre in Human Resources Management* part of Phare Programme. The project was financed by the European Union (with over 100.000,00 Euros) through the Romanian Ministry of Labour and Social Protection. The project was implemented by the Faculty of Economic Sciences of the University of Oradea, Romania, between December 2008 and November 2009 and represents a very good example of how Romanian academics have realized the need and importance of addressing strictly specialized areas. The overall objective of the project was to develop and provide training programmes in human capital domain. In order to implement within the organizations fair and consistent policies of human resources management we focus on: continuous lifelong improvement of all employees, promoting non-discrimination and efficiency use of human capital. The results of this project, with a significant impact on human capital development, were: professional development courses in e-learning system, educational software for specialized training in HR, and a virtual discussion forum on specific issues addressed both to academic theorists and practitioners in the field. The long time results imply: sustainability of our centre - creating direct jobs, the cooperation agreements between academics and HR actors of regional development and entrepreneurship, the development of additional advice and support services for finding a job, opening a business in that area, attached to training activities, create incentives for certain target groups, or for disadvantaged groups - for example: the unemployed, or for public

organizations, creating databases, networking. Finally, the paper highlights the positive impacts on regional development (effects on the labour market, entrepreneurship, public and private organizations, innovation, business success, organizational culture, labour productivity, social inclusion, equal opportunities etc.) that can be created from universities as suppliers of training programmes.

**Keywords:** human capital development, Romanian training market, Romanian organizations, universities as suppliers of training programmes, regional development

## **Optimized for Growth: Case Study of a Sales Organization**

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**Abstract:** Many methodologies for analysis and management of intellectual capital (IC) function independently from established management approaches. This case study highlights how IC concepts can be integrated into mainstream questions facing management groups of all kinds, such as: *How do we grow and optimize the performance of our organization?* This case examines a two-phase project undertaken initially to fuel growth and innovation in a company in the home healthcare industry. Phase I of the project took a top-down look at IC as a resource. It used strategic IC tools such as inventories, assessments and mapping in order to help the company identify the most effective ways to grow and scale its sales group. Findings of this phase led to approval of increased headcount, new sales initiatives, reorganization of key job descriptions and the realization that selected improvements to structural capital would make everyone in the organization more effective. Phase II of the project took a bottom-up look at IC as a dynamic system. This phase was focused on scaling the organization to grow in the most efficient way. It dug deeper into the company's structural capital using Value Network Analysis. In this phase the employees of the business group were actively engaged in the analysis and identification of potential changes. In the course of the analysis several spontaneous fixes were undertaken by employees of some of the problems identified. Other results included improving a key sales closing process, constructing a knowledge-sharing platform, developing new data and training around competitive information, and creating business cases and data to support the sales process. The case holds a number of key learnings for IC practitioners:

- IC is not a separate field of study
- IC is about bottom-up information and solutions

- Visualization cuts through complexity
- IC is critical to growth and innovation

**Keywords:** intellectual capital, structural capital, value networks, innovation, growth, healthcare, sales

## **Building a Knowledge Management Model at Brazil's Embrapa (Brazilian Agricultural Research Corporation): Towards a Knowledge-Based View of Organizations**

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**Abstract:** This paper investigates and analyses the process of building a knowledge management (KM) model at Brazil's Embrapa (The Brazilian Agricultural Research Corporation). Embrapa is a world class knowledge organization whose mission is to provide feasible solutions for the sustainable development of Brazilian agribusiness through knowledge and technology generation and transfer. The qualitative research strategy used was the study of a single case with incorporated units of analysis and two criteria were observed for the judgment of the quality of the research project: validity of the construct and reliability. Multiple sources of evidence were used and data analysis consisted of three flows of activities: data reduction, data displays and conclusion drawing/verification. The results revealed a robust KM model made of four dynamic axes: (i) strategy (a strategic conception of information and knowledge use), (ii) environment - four different groups of enabling conditions (social-behavioral, information/communication, cognitive/epistemic and business/managerial), *sine qua non* conditions for successful implementation, (iii) tool box – sets of IT tools and managerial practices and (iv) results – in terms of outputs, being both tangible and intangible assets. The conclusions suggest that a collaborative building of a KM model in a diverse and geographically dispersed organization is more likely to succeed than one that is build and implemented from the top-down perspective. Embrapa's KM Model is more inclined to be a knowledge-based view of organization than merely a KM model. Limitations of the study and suggestions for future research are also discussed.

**Keywords:** knowledge management; enabling contexts; knowledge-based view of organizations; the SET KM model; ba; Embrapa



# **Framework for Managing National Research Project Records as Knowledge Assets: Integrated use of Lifecycle, Continuum and Ecosystem Knowledge Management Methodologies**

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**Abstract:** The purpose of this paper is to explore methodologies and best practices for managing national research project records (NRPR) as knowledge assets and to propose a coherent and consistent management framework to guarantee authenticity, reliability, integrity and reusability of NRPR as knowledge assets through evidence-based knowledge management collaboration throughout the life time of the research, records and knowledge. Based on a critical review of three schools of thought on concepts of, reasons for, and approaches to, national research project recordkeeping under the impact of the lifecycle, continuum and ecosystem methodologies in current practice and research, the authors justify the necessity of establishment of a unified knowledge management framework driven by different priorities and interests of records and archives administrators; researchers and research councils; and research project investors and administrators. Through mapping knowledge intervention gaps, building knowledge interventions linkages and implementing knowledge management practices, this paper rationalizes an integrated use of the three methodologies as complementary approaches to form a unified knowledge management framework. Such a framework is beneficial to collaboration, optimization and innovation of the current management systems for national research project records, which can have shared benefits and impacts on effectiveness, efficiency and economy, and integrate national research project assets management into a cohesive and harmonious system.

**Keywords:** research project records, knowledge management framework, lifecycle, continuum, ecosystem, knowledge assets

## **Knowledge Management and Organizational Innovativeness in Iranian Banking Industry**

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**Abstract:** By moving from product based economy to the knowledge based economy (Ducker, 1994; Van de Ven, 2004), knowledge management is treated as a vital aspect to lead firms to the successful threshold. Knowledge

is merged into the nature of business competition, which leads to formulate a sound corporate strategy. Owing to technologies, materials, and competitiveness, several industries find themselves in complex scenarios. But the attention has to be turned to this point that knowledge itself cannot be the solution, but the intellectual capital and the way the firms produce competitive advantage by them is viable for them (Brooking, 1996). In this process, the firms that want to achieve better competitive position need to be innovative. Therefore, the way that firms benefit from knowledge management in becoming more innovative can bring on sustained competitive advantage for them. This is contingent to the mindset of managers in the way they look into their resources. Until now, innovation has been somewhat of a black art (Muller, Ilikangas and Merlyn, 2005). In order to make it more explicit, knowledge management can provide the metrics to make decisions about when, how and where to invest. In literatures related to innovation, knowledge is discussed as the element of a recombination process to generate innovation (Galunic, 1998; Grant, 1996). The approaches so far that try to measure firms' quantifiable success with innovations achieved through KM is still debatable. Both exploration and exploitation of knowledge contribute to the innovativeness of firms and to its competitive advantage (Swan et al., 1999; Hall et al., 2002; Levinthal et al., 1993; March, 1991). Empirical work, however, is still in its infancy and characterized by measurement approaches (Hall et al., 2006). The originality of this study lies in its purpose to explore issues of knowledge management and its relation to the innovativeness of organizations. The study focuses on three selected Iranian banks, an industry and a setting that receive less attention by researchers so far. As, human resources is considered as a valuable source for organizational innovativeness, this paper studies managers' mindset effectiveness in leading or misleading the organizations in achieving organizational innovativeness. Based on a questionnaire survey, the authors argue that applying the knowledge management makes it simpler to achieve the innovativeness in organizations. What we found significant in this study is that employees who are provided with appropriate opportunities toward generating novel ideas would create new services in banking. The mindset of bank managers who care about their human resources absorbs diversity of opinions and provides equal opportunity for all employees to present ideas.

**Keywords:** knowledge management, innovativeness, human based resources, leadership view

# Communicating Intangibles Prior to Assets: The Traces of Knowledge

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**Abstract:** The implementation of International Financial Reporting Standard (IFRS) 3 on business combinations introduced a less conservative treatment of intangibles, the accounting depiction of Intellectual Capital (IC) in financial accounting. It now became possible to recognize intangible assets previously only accounted for as goodwill. A criterion for recognition is that such an asset is separable or arising from contractual rights. This is in line with the need for reduced prudence in order to account for intangibles, widening what could be represented in financial reporting as economic substance. Allied to this decrease in conservatism is the suggestion of a general reduction in the level of prudence within the conceptual framework underlining IFRS. What remains unaccounted for as a separate asset is an assembled workforce, which thereby remains treated in a conservative fashion. Accounting for employees resembles accounting for their knowledge, which within one area of intangibles has included the transfer of human capital into structural capital. The management, development and transformation of knowledge is thus of importance. This relates to another facet of prudence, that of stewardship. From this point of view prudence restricts managers as they become accountable towards outside parties of the firm. Management implies activities and activities often involve contracts. These activities can include the transformation of intangibles. An issue is therefore how contracts and prudence interrelate in communicating intangibles with contracts involved before the contract materializes as an asset in financial reporting. The paper is a discussion of reporting intangibles related to management activities if extending accounting using contracts. Using the contract as a representation of intangibles, an illustration of an onerous customer contract in the service sector is used as an example. The illustration covers the knowledge transfer represented in the human capital from an assembled workforce, emphasising its (lack of) accounting representation. In this setting management activities are present and prudence can be, but is not at the moment, a tool to report these activities. An increased emphasis on contractual content capturing intangibles could be seen as an opportunity. At the same time, a more restricted use of prudence relating to management will reduce the potential enhancement of communicating management action and intangibles in transformation.

**Keywords:** accounting, human capital, intangibles, knowledge transfer

# **Developing a Knowledge Management Maturity Model Towards Government Organisations Competitiveness**

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**Abstract:** Today all organizations are under clear challenge to shift their organizational culture attitudes to remain knowledge focused, However , this is more important for governmental organizations where Knowledge Management (KM) maturity is not well understood. This research draws upon different work relevant to KM maturity to facilitate establishment of a model that would be based on the development of KM Enablers as reflected in the organizational status towards organizational competitiveness. A questionnaire of 107 Top and upper middle Managers from 61 Government Organisations, was analysed where the results of KM Maturity reflected the need for further empirical studies to investigate what are the other constructs of the KM maturity that would make a difference in correlation towards governmental organization competitiveness.

**Keywords:** knowledge management, knowledge management maturity , organisational competitiveness

## **Knowledge Management in Professional Soccer**

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**Abstract:** The role of football in society has changed substantially over the past twenty years becoming to even larger extend the daily topic of millions of people around the world. Nowadays, the attention is drawn to both the needs of fans and obviously, the business. The game has evolved greatly in terms of physical performance while few changes are observed in its tactical aspect. The main goal of the professional soccer clubs is always to possess the best players, in the meanwhile forgetting about the team, except of course for some rare exceptions. This paper demonstrates that the practice of football as well as other sports should not ignore the basic requirements necessary to build a team and it also presents ways to address the value of knowledge management and its benefits for all stakeholders. Some of the key points discussed in this paper are the theory of team building, the different roles of group members and the transfer of know-how from generation to generation and how all these combined can make a difference.

**Keywords:** team, roles, knowledge, group management, Ba

## **Application of IT Tools in KMS Within a Social Ecology**

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**Abstract:** Nowadays, Information Technologies (IT) are part of, practically, every aspect of life and business. The spread use of IT has led to both positive and negative consequences in the areas where they are applied. One of these areas is the implementation of Knowledge Management Systems (KMS). The application of certain technologies within a KMS pursues the efficient and effective realization of specific functions within the system. However, it is quite common to face a deficient or erroneous knowledge creation due to an incorrect utilization of these technologies. An incorrect application can go from a lack of definition of the role of a technology, to a perception of IT as a solution to knowledge creation problems itself. The incorrect application of technological solutions to KM issues can lead to a deficient creation of knowledge, an inability to update knowledge because of the rapid evolution of technologies, and, even, to erroneous decision-making. To address the described issue, this paper states the importance of understanding the influence of a KMS in an organization and developing conscience regarding the role of IT both within such organization and in society. Next, a description of different functions in KMS and the adequate technologies to correctly implement them is made, taking into account the knowledge structure and capabilities of the enterprise. Finally, the significance of a KMS and a social ecosystem to support the implementation of IT is acknowledged, both to make the best out of an investment in technology and to achieve a consistent knowledge creating structure.

**Keywords:** knowledge management system, information technology, knowledge structure, social ecology

# **Capturing and Reporting Of Structural Capital in the Quality Management Process: A Case Study in a Batteries Manufacturing Company**

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**Abstract:** Knowledge assets underpin the capabilities and core competencies of any organization. The importance of a knowledge audit is the first step to determine how knowledge is handled in mission critical business processes in an organization. Quality management processes are some of the main subsets inside an organization's critical business processes. A knowledge audit provides an evidence based assessment of the knowledge assets within an organization. There is a lack of a systematic approach in the way knowledge audits are conducted. In addition, there is no standard way of measuring Intellectual Capital (IC) through a better understanding of knowledge assets that are captured from a knowledge audit. The two different streams of KM and IC are complementary and provide the cornerstones for the definition of a managerial framework to identify, assess, exploit and manage organizational knowledge. In view of the importance of the knowledge audit and the deficiencies in the standard ways of IC measurement, a knowledge audit approach called STOCKS (**S**trategic **T**ools to Capture **C**ritical **K**nowledge and **S**kills) has been applied to several industries previously, this paper presents a modified STOCKS approach which has been applied in a Quality Assurance (QA) Department of a Batteries Manufacturing Company, for knowledge assets stock-taking in six specified Value Added Quality Management Processes (VAQMP). The audit is composed of seven phases which are: 1. process prioritization and selection; 2. workflow study; 3. face-to-face individual interviews and STOCKS form filling; 4. building a knowledge inventory; 5. data analysis; 6. data validation ; 7. recommendations of certain knowledge management strategies. The modified STOCKS was implemented successfully in the Group Quality Assurance Department (GQA) of a Batteries Manufacturing Company. More than 74 staff, over 4 corporate functions and 5 departments in two manufacturing plants, from different work levels involving 6 quality management processes from each plant, participated in the audit project. 52 Participants were provided with various STOCKS forms to complete in order to provide information about the IT tools/platforms, documents, implicit knowledge, as well as the critical industrial technologies in each VAQMP process. Quantitative and qualitative analysis was then made, including stakeholder analysis and the identification of critical knowledge workers,

industrial technologies, crucial documents, implicit knowledge, as well as the knowledge fountain and knowledge discovery points of the process. The outcomes and effectiveness of STOCKS were evaluated in both KM and IC aspects. In most Intellectual Capital assessment tools, the workflow of the business process and the specific knowledge needs are not taken into account. STOCKS, on the other hand, helps to identify critical organizational knowledge that needs to be captured and transferred for the healthy operation and sustainability of the quality management processes, to prevent quality crises. Finally, after the consolidation of the explicit and implicit knowledge inventories, as well as constructing an IC tree, an intellectual capital statement for the Group Quality Assurance (GQA) Department was produced.

**Keywords:** group quality assurance, intellectual capital, intellectual capital statement, ic tree, taxonomy, value added quality management processes

## **Information Seeking Behavior of Police Officers in Hong Kong: An Exploratory Study**

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**Abstract:** The information seeking behavior of a random sample of 40 Hong Kong Police Force (HKPF) officers was investigated from the perspectives of: information seeking behavior; type of searching undertaken; level of sophistication of searching; ability to retrieve required information, and use of the HKPF Library (HKPFL). Frameworks such as: the information seeking process (Chowdhury 2004); the information management cycle (Choo, 1998); and the Information seeking of professionals model (Leckie, Pettigrew & Sylvain 1996), were applied. Data gathering methods included: survey; interview; observation; and case study. Results indicate that the respondents are not, overall, effective information seekers. The respondents generally apply simple retrieval techniques despite perceiving them to be less effective than more advanced techniques. The respondents were often unable to effectively frame simple enquiries. A novice member was less effective and slower at retrieving information than an experienced member, suggesting that transfer of organizational members' knowledge of information seeking to newer members could be valuable. The sampled HKPF members prefer using print materials to electronic materials or web pages, although these formats are also popular. 27 (67.5%) respondents visit the HKPFL two or less times per week, while 36 (90%) respondents visit the HKPFL website two or less times per week. Most respondents use the HKPFL for leisure rather than work related purposes, although this behavior is both position and department

sensitive. Most respondents prefer to browse the collections on shelves and seek help from librarians instead of searching the library catalogue. Recommendations for improving HKPF members' information skills include: information literacy instruction for new recruits; promoting the HKPFL as an information hub; providing guides for use; and further developing the HKPFL to match members' information needs by improving collections.

**Keywords:** information seeking behavior in professions

## **Performance of the Operational Headquarter eBusiness on the war Room Process**

**Lin Yao Chin and Tsai Ping Heng**  
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**Abstract:** This paper aims to discuss the resource integration in the war room process. In this case, war room has included three systems (sales and procurement, production and resource integration, business intelligent), and through these systems helps managers understanding state of the art. The main purpose of this study was discussing the problem in how a company through the war room integrating resource allocation and knowledge sharing supporting information to the operational headquarter to help decisions. The case study method was been performed, and the case company is standing in electronic industry in Taiwan. Finally, we compared the differences between systems implementation and used related financial indicators to point out the benefits.

**Keywords:** operational headquarter, war room, knowledge integration, information system, supply chain management

## **International Strategic Alliance and Organisational Learning: Factors for Promoting Learning: A Malaysian Case**

**Zuraina Dato Mansor**  
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**Abstracts:** Intense competition and the augmentation of business opportunities are amongst two major factors for the globalization of worldwide markets and economies. These trends are currently exploiting the industries manufacturing and non-manufacturing, calls them to take advantage of globalization process and to adopt a more sophisticated approach to strategic marketing and planning including performing collaboration. Companies have to constantly increase their knowledge base if they are to remain competitive. One way of increasing knowledge is by forming alliances. The purpose of this



study is to identify the factors that promote learning through the formation of strategic alliances between a Malaysian manufacturing organisation with a UK partner and have included learning into their alliance objectives. It is a qualitative and in-depth studies of the company where the data collection process involved one time forum with personnel who were directly involved under the project, interviews with selected respondents, questionnaires, plant observation as well as secondary resources such as company reports and brochures.

**Keywords:** international strategic alliance, organisational learning, key elements for promoting learning

## **The Intelligent Enterprise: Knowledge-Driven Category Management**

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**Abstract:** Within the framework of Knowledge Management, Decision Analytics provides the means to share the organization experts' knowledge analyses and decision-oriented thought process with other decision makers and analysts using guided decision-making processes. The Consumer Packed Goods (CPG) and retail industries have been continuously investing in knowledge-based decision analytics systems for the analysis of their product categories. One of the most important areas of analysis is Category management analytics. This research provides sophisticated knowledge-driven decision analytics of product categories within the knowledge management framework to help companies develop and maintain their market competitive advantages through executing effective category management strategies within the framework of knowledge management.

**Keywords:** knowledge management, business intelligence, category management, decision analytics, guided analysis

## **An Examination of two Grand-Theories of IC as Barriers to the use of IC Concepts**

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**Abstract:** This paper is examines the question "What are the barriers to mainstream use of IC concepts?" by discussing and critiquing two contemporary grand-theories about IC being market-to-book ratios as a representation of IC and disclosing IC leads to greater profitability. The paper

also explores reasons why the theories hinder the take-up of IC concluding that these theories mislead because they cannot be proven empirically. Therefore, managers should attempt to better understand the possible causal relationships between their people, processes and stakeholders (human, structural and relational capital) which work for them rather than adopting someone else's mousetrap. Thus, in order to improve the use of IC concepts they should be examined as differentiation theories of practice which take into account the agent (people) as a unit of analysis, the actual practice of IC and the resultant changes within an organisation: rather than trying to achieve the impossible generalisations of IC grand-theories.

**Keywords:** intellectual capital; market-to-book ratios; grand-theory; disclosure; causal relationships; differentiation theories of practice

## **Knowledge Transfer and Relationship Building Among Students, the Small Business Community and the University**

**Lian Dumouchel**

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**Abstract:** As educators, we strive to make learning meaningful to our students and build respect and appreciation for the pursuit, advancement and sharing of new knowledge. Helping students develop the skills, ability and self-confidence to apply and test important research concepts and methods in the community can bring us closer to these goals. This paper presents the challenges, successes, lessons learned and valuable community relationships created from the introduction of innovative educational strategies in senior level undergraduate Tourism Management courses at Thompson Rivers University. Field-based assignments were designed to introduce students to important new knowledge in the tourism arena and apply research methods typically used in post-graduate programs. They were developed to enrich the student learning experience and build a culture of appreciation for research. Historically, this knowledge has been primarily available to large business organizations that possess the resources needed to acquire this expertise. The case of one particular course will be addressed here: TMGT 419 – Tourism Enterprise Consulting Project. The course adopted a “consulting” approach whereby students were assigned the task of securing potential community “clients”, perform a “needs assessment”, develop a project proposal, obtain client approval via an “engagement contract” and follow through with the implementation of the agreed upon project objectives. Over a period spanning two semesters and under the direction of a faculty supervisor, students were expected to gain expertise in the relevant fields of study related to their project and complete a project up

to professional standards. Although the approach used by the course is quite unusual at the undergraduate level and has a number of inherent risks, it did promote the development of strong communication, relationship building, project management and research skills among the students enrolled in the course. Introducing relevant and useful new knowledge and expertise to small businesses in the community through the provision of student consulting services resulted in the development of a growing network of mutually rewarding relationships that include students, the small business community and the university: a win-win-win scenario.

**Keywords:** student consulting, knowledge transfer, applied research, experiential learning, community relationships, case study

## **Management of Innovation in Hospitals: From the Introduction of a new Health Information Technology to Organizational Performance**

**Pouyan Esmailzadeh, Murali Sambasivan and Naresh Kumar  
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**Abstract:** The rapid pace of technological change has caused many competitive challenges for hospitals. The emergence of sophisticated technologies in the health care industry determines the important need for continuous and quick changes in organizational activities. New Health Information Technology (HIT) is supposed to improve the quality of health care delivery as an innovation. But it is fully naive if any new technology simply considered as an innovation. New technologies flourish as an innovation if the process of introduction and implementation is managed successfully. Also, if a new technology can change the process of health care delivery, it can emerge as an innovation and provides a competitive advantage for hospitals. Otherwise all the effort and investment are doomed to failure. This research as a conceptual study highlights how new HIT systems can contribute to organizational performance in hospitals.

**Keywords:** innovation, health information technology (HIT), competitive advantage, organizational learning, organizational performance

# Intellectual Capital and Knowledge Management Practices in Health Systems

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**Abstract:** The most important source of competitive advantage is knowledge. Organizations need to perceive knowledge as an asset and reconsider the role played by labor and management within the current information and knowledge paradigm. Health systems are highly complex and diverse in their missions and visions and address various healthcare related organizations, which are collectively constituted by their intellectual capital. The interaction of three intellectual capital components, resulting from organizational information systems in conjunction with the knowledge held by those involved in care and management, generates knowledge in health organizations. Understanding organizational knowledge processes and how they are applied daily is a critical factor to success. Hence, the practice of knowledge management requires continuous support from leaders, ensuring its value and results are captured in the minds of employees. This study establishes a link between knowledge management, leadership and emotional commitment. Following its development, our model was then applied to nurses in a health organization and demonstrating how the adoption of knowledge management depends on the level of sensitivity shown to the organization's culture and needs.

**Keywords:** intellectual capital, knowledge management, organizational learning

## Learning and Knowledge in the Context of Absorptive Capacity

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**Abstract:** The main purpose of this research is to identify the hidden knowledge and learning mechanisms in the organization in order to disclose the tacit knowledge and transform it into explicit knowledge. Most firms tend to duplicate their efforts acquiring extra knowledge and new learning skills while forgetting to exploit the existing ones thus wasting one life time resources that could be applied to increase added value within the firm

overall competitive advantage. This unique value in the shape of creation, acquisition, transformation and application of learning and knowledge is not disseminated throughout the individual, group and, ultimately, the company itself. This work is based on three variables that explain the behaviour of learning as the process of construction and acquisition of knowledge, namely internal social capital, technology and external social capital, which include the main attributes of learning and knowledge that help us to capture the essence of this symbiosis. Absorptive Capacity provides the right tool to explore this uncertainty within the firm so that it is possible to achieve the perfect match between learning skills and knowledge needed to support the overall strategy. This study has taken in to account a sample of the Portuguese textile industry and it is based on a multisectorial analysis that allows a crossfunctional analysis to check on the validity of results in order to better understand and capture the dynamics of organizational behavior.

**Keywords:** absorptive capacity, knowledge, learning, innovation, cooperation

## **Post-Merger Knowledge Transfer: Examining Antecedent Structural Complexity**

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**Abstract:** This paper examines the effect of prior characteristics of two merging organizations on the post-merger transfer of knowledge among organizational actors. Detailed facets of pre-merger organizational complexity, team complexity and infrastructure support are manipulated in controlled virtual experiments that simulate the profile of various merger scenarios. The task-specific, knowledge transfer rate of the newly merged organization is examined vis-a-vis these antecedent control variables. Agent-based computer simulation experiments are run controlling for various structural complexity components. The organizational actors are social and are communicative. Knowledge facts are exchanged through their interactions with other individual agents. These facts are essential for accurately performing tasks that are accomplished by individuals, work-groups, or cooperative-teams. These virtual experiments are executed in the context of an organizational merger, where two previously separate groups must now integrate into interrelated individuals and interconnected teams to perform the same tasks, but within a vastly different social and intellectual structure. The scenario for these experiments is a horizontal merger. This study investigates the post-merger integration through the lens of different metrics that capture the integration outcomes according to the levels of knowledge being held by individuals and teams assigned to specific tasks. The experiments show that each factor varies in the amount of influence each has on the transfer rate.

Moreover, the combination of these factors has strong predictive power to quantitatively forecast the task-knowledge evolution in merging organizations, which can contribute to developing high-level, organization-performance projections. This study has immediate relevance to future post-merger integration research and practice by providing a theoretic and quantitative model useful for rationally estimating the post-merger knowledge transfer within a specific merger scenario. Five conclusions are reached and presented in the discussion. The conclusions advance the knowledge about organizational behavior during the post-merger integration period of a merger event. Moreover, they provide a baseline for an integration manager or practitioner to use as a guide to designing integration strategies and interventions.

**Keywords:** post-merger integration, knowledge transfer, computational organization theory, computer simulation

## **Identification and Classification of R&D Managers' Tacit Knowledge: Case Study of R&D Institute, Active in the oil, gas and Petrochemical Industry**

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**Abstract:** One of the main problems in research-based institutes nowadays is that the managers' individual knowledge is not being acquired and shared. This is found to be even more important in these kinds of organizations because their activities are mostly based on research programs, and one of the most crucial keys to success in these types of projects is the way they are managed, and how the problems are faced during the project. R&D management knowledge transfer is effective for improving the success probability of R&D programs because success or failure of these programs largely depends on quality of management rather than quality of technology. Therefore, program managers should learn best practices from previous programs. Hence the acquisition of the managers' knowledge and sharing it is of special importance. In this paper, we intend to introduce a model for capturing the R&D program managers' tacit knowledge and classifying their fields of knowledge. Knowledge transfer and application are main objectives of knowledge management. Therefore, using knowledge effectively requires fields of R&D program managers' tacit knowledge to be identified and classified. Life cycle of R&D projects and "A Guide to the Project Management Body of Knowledge" (PMBOK Guide) are used to develop this

model. The “Theme Analysis method”, is used to develop this model and in order to do so, we have based our study on a qualitative, cross case method and face to face interviews and questionnaire are used as the tool for data gathering. Also, to validate the collected data, we applied a questionnaire based on 5-point scale. In addition, this model is implemented. As a result of the implementation of this model in an R&D institute, active in the oil, gas and petrochemical industry, 15 fields of knowledge in three classes (program selection, program execution, and program implementation including three, ten, and two subclasses) were identified. These fields are complementary of the PMBOK Guide’s modules.

**Keywords:** managers’ tacit knowledge, theme analysis, knowledge classification, program management

## **Knowledge Management, an Enduring Fashion**

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**Abstract:** Knowledge Management has been a subject of significant management interest for some 15 years. During that time it has been subjected to a variety of criticisms including the argument that it is little more than a “fad” -- something that catches management’s attention for a while and then fades away because of a lack of sustainability. It has been compared to other major management fads such as quality circles and business process re-engineering. This paper examines the discipline of Knowledge Management (KM) through the lens of management fashion theory. It demonstrates that KM is not a fad and that it has become an enduring management activity. Management Fashion Theory (Abrahamson and Fairchild, 1999) is an extension of Rogers’ Theory of Diffusion of Innovations (Rogers, 2003), that takes a skeptical view of business innovations, viewing the discourse about and the diffusion of innovations as a cultural phenomenon rather than a rational decision making process. After a brief introduction to the field of Knowledge Management (KM), a review of the theories of Diffusion of Innovations and Management Fashion is presented, along with a description of the methodology used to apply Management Fashion Theory to the discourse on KM. Bibliometric and content analysis techniques are used to examine publications and discourse in the field from 1990 to 2009. The analysis of discourse on KM demonstrates a significant period of “latency” from the late 1980s to 1994, during which foundational ideas and precursors to KM appear. Then a rapid growth period is identified, from 1995-2001 during which KM becomes an innovation of interest to most major organizations. Finally, it appears that discourse has settled at a steady

state, with no decline apparent. However, detailed analysis has also indentified a potential conflict between the interests of practitioners and researchers, with a separation of the discourse into distinct groups. In summary, this paper presents a comprehensive analysis of the evolution of discourse on KM. It provides bibliometric evidence that there has been a sustained interest up in KM that is quite unlike that of other popular management themes over the last 30 years. It raises some questions about the relevance of some of the research being carried out.

**Keywords:** management fashion, innovation diffusion, bibliometric analysis, KM strategy

## **Smarter Innovation Networks in Enterprises**

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**Abstract:** According to the problems in Chinese enterprise technology innovation, a concept of smarter enterprise innovation network was proposed, which has three characteristics: (1) The value of knowledge, information for experts inside and outside enterprise, information of the market changes and user's demand are more insightfully perceived; (2) The information among the knowledge life cycle, internal and external enterprise knowledge, behavior of employee knowledge sharing and innovation activities, knowledge suppliers and demanders, knowledge and the innovation process are communicated much comprehensively; (3) Knowledge management system become more intelligent though building the dynamic relationship between the knowledge and persons, which means the more usage of the system, the smarter it would be. Implementation methods for the smarter enterprise innovation network were presented: (1) Managing, tracking and monitoring the life cycle of the knowledge: According to the knowledge application result, the appropriate incentives are given to knowledge contributors; Evaluation of knowledge and staffs is combined, so that the knowledge network will be more ordered, and people will take part in construction and evaluation of knowledge network much responsibly and actively;(2) Rely on public assessment of knowledge:organizing related staffs to vote some knowledge for a particular evaluation; knowledge evaluation based on Wikipedia (Wiki) model; evaluation knowledge based on behavior of knowledge application by staff; (3) Combining the knowledge evaluation with the daily use of knowledge. There are some problems need to pay attention to: scoring standards for the behaviors of daily knowledge application; knowledge



evaluation strategy for some possible cheating behaviors; knowledge evaluation strategy for some possible negative behaviors. The system based on this concept has been partly applied in a certain research institute.

**Keywords:** technology innovation; innovation network; knowledge evaluation; knowledge management; knowledge network

## **The Formulaic and Embryonic Dimensions of Knowledge Management Strategy: A Social Practice Perspective**

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**Abstract:** Knowledge Management (KM) literature is populated with a variety of perspectives, prescriptions and studies of practice, which can be complex, contradictory and confusing to practitioners who seek to make sense of, and adapt them for practice. A sub-set of this literature argues that a clear link to business strategy is critical to KM strategy's success (see Storey & Barnett, 2000; Zack, 1999, 2002), but extant research shows that this link is often weak (Leidner, 1998; Ruggles, 1998; Storey & Barnett, 2000; Zack, 1999). These debates however, adopt a mainly rational perspective which overlooks the 'emergent' and 'sensemaking' aspects of strategizing. This paper argues that an extended 'social practice' (Hendry, 2000), which brings together the rational, emergent and sensemaking perspectives, provides a useful multi-perspective framework for investigating the extent to which practitioners' approach to setting up KM strategies in their firms are influenced by their firms' business strategies. Using an extended social practice framework, I examined the managerial accounts of the processes of setting up KM strategies in 18 global firms. This study contributes to a better understanding of the ways in which business strategy influences the KM strategizing process. The findings support extant research by suggesting that a weak link between KM and business strategy existed in these firms. However, this study demonstrates that from the social practice perspective, firms take two different approaches to KM strategy, *formulaic* (to support their routine activities) and *embryonic* (to address their immediate strategic agenda), which signify their enduring and transient KM practices. Finally, this study concludes that further research is needed to explore the dynamic interactions between the formulaic and embryonic KM approaches.

**Keywords:** KM strategy, embryonic KM strategy, formulaic KM strategy, link between KM and business strategy, KM strategy as social practice

# Culture vs. Cultures of Innovation: Conceptual Framework and Parameters for Assessment

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**Abstract:** The paper analyzes the complex notion of “innovation culture”, which remains somewhat simplistically treated in the academic literature, its parameters for assessment and presents the pilot study of innovation culture in a sample of modern Lithuanian organizations. The paper argues that “innovation culture” is a complex and at times contradictory concept. It is both routine-based and change-oriented, besides, every innovation culture has universal and unique traits. However, the “cultures of innovation” approach is clearly underrepresented in modern “universalist” management research. This paper relies on the definition of innovation culture proposed by Heidenreich (2001) as “relatively stable modes of reflection, behaviour and social organization, directed towards “modernization” and “development”, based on shared values”. To be innovative, the society and its organizations must possess the general characteristics of the innovation culture: (1) high tolerance of risk, complexity and change, (2) emphasis on flexibility and mobility, enabled by flat organizational structures, (3) trust-based cooperative relations inside and outside the organization, (4) emphasis on creativity and learning (on individual and collective levels). However, every parameter may have its own unique characteristics in the specific social-organizational environment. Therefore, the “culture of innovations” is hardly a universalist phenomenon. The emergence of successful innovative practices outside the Anglo-Saxon cultural hemisphere calls for reconsideration of the traditional approaches to “innovation culture”. The pilot survey of 68 modern Lithuanian organizations has shown that the most problematic aspects of innovation culture concern the tolerance of risk, uncertainty and change, which is usually considered to be of fundamental importance to the success of innovation-oriented performance. The mobility/flexibility dimension is also faced with certain constraints. On the other hand, the dimensions of *networking* and *learning* are relatively well represented in the surveyed organizations. Under uncertainty, the organizations tend to favour a collectivist and hierarchical decision making - *consensus rule* and *adoption of the position of the responsible authority*. The findings reveal that the innovation culture is pronounced at the idea generation level, but faces limitations on the level of implementation (i.e. due to mental inertia and the application of bureaucratic instruments). The “cultures of innovation” approach calls for a more qualitative research agenda, which will be developed during the further stages of the research. **Keywords:** innovation culture, innovation routines, organizational culture, values, organizational practices

# **The Role of Image and Reputation as Intangible Resources in Non-Profit Organisations: A Relationship Management Perspective**

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**Abstract:** The current research on relationship management primarily focuses on enhancing customer relationships through image or reputation in organisations. The resource-based theory portrays image and reputation as important intangible resources that are derived from combinations of internal investments and external appraisals. With this in mind, the role of image and reputation in value creation needs to be carefully delineated. In non-profit settings, stronger image and reputation are likely associated with higher quality of goods and services, better delivery of those goods and services, improved management of donations and funds, and improved outcomes (e.g., higher capability to make a difference in societies). Following a critical analysis of current literature with relevant examples, this paper argues that image and reputation are the keystones of non-profit organisations' differentiation strategy. The resource-based theory suggests that resource factors represent a stronger explanation of differences in firm performance. Organisations are more likely to grow and develop higher performance potential if more resources are invested in image and reputation. By integrating several disparate resources, image and reputation as intangible resources can become more difficult to imitate and provide a more sustainable source of competitive advantage in organisations. Thus both image and reputation are likely influential elements that assist non-profit organisations in developing and managing relationships with external stakeholders, and thereby aid organisations in attracting important resources such as donations and volunteer support. The study findings contribute to the more general understanding of image and reputation from a relationship management perspective in the non-profit context. Thus, the paper adds a new dimension to the body of literature by arguing that image and reputation can be utilised as relationship management tools in non-profit organisations. However, image and reputation are external to organisations and volatile in nature. Non-profit managers must strategically develop relationship management activities in their organisations, with image and reputation being central.

**Keywords:** image; reputation; intangible resources; non-profit organisations; relationship management

# **An Organizational Learning Method Developed by Extracting Organizational Knowledge Based on an Analysis of Activity Logs**

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**Abstract:** Knowledge sharing has become an important corporate strategy to beat competitors. A number of ethnographic workplace studies show that the intelligence employed in everyday work practice is crucial to accomplish work. However, it is difficult to share such intangible, invisible, and situated knowledge of workers as organizational knowledge. We propose an organizational learning method that extracts organizational knowledge from individual workers' experiences. This method enables the conversion of tacit knowledge to explicit knowledge. It also enables the transfer of the knowledge generated by individual workers' experiences to members who have not experienced the event. Learning history and storytelling are proposed to share knowledge about everyday work practices. A learning historian interviews workers about various events and describes them in a story. Subsequently, the learning historian holds a workshop inviting the workers from related business segments and discusses the stories told to share experiences and lessons learned. These stories, however, tend to be extremely abstract and biased by the interviewee's mental models. It is not always possible to successfully capture valid knowledge that leads to concrete actions in order to solve problems. In addition, the knowledge captured from a story can be applied only to situations that are similar to those in the story. The proposed method created virtual experiences that promote experiential learning by using history charts. History charts visualize success/failure cases in step-by-step actions with evidenced materials. The method consists of three phases: 1. analyzing and visualizing individual experiences, 2. conceptualizing organizational knowledge, and 3. facilitating virtual experiences. It is based on Kolb's experiential learning theory. We applied our method to knowledge sharing problems of the requirements engineering (RE) process of information system (IS) developments and verified the effectiveness of the method. RE is a process that system engineers clarify system specification through interactions with customers. The quality of the RE process highly depends on the engineers' skills. Poor RE processes produce a number of reworks by failing to capture the customers' real needs. We analyzed 127 failures in eliciting requirements and extracted seven cause patterns of failure cases and history charts that showed the step-by-step actions of the cases as organizational knowledge. We held workshops to facilitate virtual experiences by using cause patterns and history charts. We observed the behavior of a participant after the

workshop. The participant successfully detected some specification bugs in customer reviews by using the cause patterns. This indicates that the knowledge transfer worked well. We also evaluated whether knowledge transfer occurred by administering a five-level questionnaire to 28 participants. The result was 4.48 points (median: 5, dispersion: 0.57). We compared the differences of conversation protocols between two conditions: virtual experience workshops with history charts and workshops without history charts. Behaviors of knowledge transfer appeared only when the charts were used. The results of experiment showed that the following. 1. Participants of virtual experience workshops could expand in detail their understanding of others' requirements elicitation experiences. 2. Participants could apply acquired knowledge to their practices. 3. The history chart worked to promote sharing behavior level knowledge. These results showed that the proposed method worked well to share the knowledge extracted from organizational experiences.

**Keywords:** organizational learning, explicit tacit knowledge, experiential learning

## **On Possibilities to Develop Cross-border Knowledge Region: The Case of Tallinn (Estonia) and Helsinki (Finland)**

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**Abstract:** The globalisation of economic and social activity is testing the ability of local economies to adapt and exploit or maintain their competitive edge as scale becomes more important: economic activity continues to cluster and concentrate. Disparities in economic performance among different, even neighboring countries tend to be persistent. Still, technological change (ICT) and greater use of knowledge are offering new opportunities for regional and inter-regional development and knowledge transfer, but demand changes in local governments' governance philosophy, further involvement of innovative enterprises and participation of universities and research institutions in local environment. The cross-border co-operation is one of means to raise the competitiveness of regions: In order to better promote the cross-border co-operation many regions in the EU have established cross-border co-operation (CBC) organisations/euroregions, as such, NPA Helsinki-Tallinn Euregio was formed in 1999 with the aim to enhance regional integration between Tallinn (Estonia) and Helsinki (Finland) capital regions. Applying knowledge concepts to cities and regions is a phenomenon of the last twenty years. From a geographical perspective, Helsinki and Tallinn are among the closest capitals in Europe. A long-term vision states that the

Helsinki and Tallinn regions will form a united science and education area, a Knowledge region. In current article the author studies preconditions for creation of a common knowledge region between Helsinki and Tallinn capital regions under conditions where a special institution Helsinki-Tallinn Euregio is part of the process, developing innovative forms of co-operation, using complex tools and methods for advancement of regional integration. The empirical part of the article is based on the analyses of studies conducted among Tallinn and Helsinki experts since 2003 to 2010. The article concludes by presenting experiences this type of institution could use to assist in forming two capital regions into the integrated knowledge region.

**Keywords:** cross-border co-operation, cross-border knowledge region, knowledge transfer, Helsinki-Tallinn Euregio

## **Use of Market Mechanisms for Election Outcome Prediction**

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**Abstract:** Looking into the future and creating an exact prognosis, has always been a challenging and equally important task of political science. The forecast of election results is much important not only to the participating political parties, but also to various third parties such as lobbyists and other interest groups which must respond to the changing political environment. Statistical time series based on historical election results are of limited use because of the infrequent election events and the resulting discrete data series. Thus, such an approach fails to predict the outcome of an election. And above all, the current environment e.g. the state of the nation and the party manifestos determine the election outcome to a great extent. Furthermore even the public and media appearance of the candidate whose sympathy plays a significant role seems crucial. This allows the general mood of the electorate to change significantly in the medium term. In 2009 the department of information management at the technical university of Dortmund has developed and initiated such a political stock market in cooperation with the Frankfurter Allgemeine Zeitung, one of Germany's leading newspapers. The predicted outcome of the elections has been remarkable and demonstrated the eligibility of political stock markets in political research. Consecutively, within this work the benefits of political stock markets in general will be discussed. Furthermore, the Politikmarkt2009, the respective political stock market, will be explained in regard to its range of functions and operation. In particular the experience gained during the operation and the problems encountered are examined.

**Keywords:** political stock market, PSM, election forecast, prognosis, collective information processing

# Knowledge Creation Through Development Projects

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**Abstract:** The focus of the paper is set on efforts to produce and manage organizational learning and development through engagement in organizational development projects, involving the implementation of new methods, new technologies and new ways of organizing the work processes. The issues discussed in the paper are: What are the frames of organizational learning taking place through organizational development projects. What are the causes and consequences of different levels of engagement from the staff in the projects? What factors interfere with the possibilities of transferring what is learned or implemented by the organization during the projects to the routine activities of the organization after the finishing of projects ?. In the paper a typology of development projects is presented and discussed as different ways of framing the organizational learning processes, The paper is based on an empirical study of four organizational development projects (covering the organizations as a whole) held by four Danish High Schools (“gymnasium”). The study included questionnaires as well as interviews with the management and staff, plus a survey of selected written materials and documents. The purpose of the paper is to describe the activities, actually organized by the projects., as well as the various ways in which different groupings among the staff and the management are relating to the project. A special focus is set on the different perspectives on the projects established by the staff and the management and how the perspectives have consequences on what is actually learned by individuals as well as the whole organization. Another issue is the weak links between what is known by the staff as ‘ordinary problems’ of the organizations and the objectives and goals of the development projects. The theoretical frame of analysis has references to Nonaka & Takeuchi (knowledge creation through the transformation of the forms of the knowledge), Argyris and Ellström (the distinction between modes of correction and modes of development) .

**Keywords:** organizational learning, development projects, implementation of knowledge, organizational concepts

## **Free and Open-Source Software is not an Emerging Property but Rather the Result of Studied Design**

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**Abstract:** Free and open source software (FOSS) is considered by many, along with Wikipedia, the proof of an ongoing paradigm shift from hierarchically-managed and market-driven production of knowledge to heterarchical, collaborative and commons-based production styles. In such perspective, it has become common place to refer to FOSS as a manifestation of collective intelligence where deliverables and artefacts emerge by virtue of mere cooperation, with no need for supervising leadership. We show that this assumption is based on limited understanding of the software development process, and may lead to wrong conclusions as to the potential of peer production. The development of a less than trivial piece of software, irrespective of whether it be FOSS or proprietary, is a complex cooperative effort requiring the participation of many (often thousands of) individuals. A subset of the participants always play the role of leading system and subsystem designers, determining architecture and functionality; the rest of the people work “underneath” them in a logical, functional sense. While new and powerful forces, including FOSS, are clearly at work in the post-industrial, networked economy, the currently ingenuous stage of research in the field of collective intelligence and networked cooperation must give way to a deeper level of consciousness, which requires an understanding of the software development process.

**Keywords:** open source, FOSS, software process, collective intelligence, wikipedia

## **Critical Evaluation of Strategies for Value Creation in Knowledge Driven Organisations**

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**Abstract:** Increased adoption of information and communication technologies and e-commerce has led to knowledge management being a crucial element for competitiveness of organisations. Furthermore, the creation and measurement of intellectual capital are major issues within the knowledge management field. However, there is a lack of dynamic strategic frameworks to address this area. This paper provides results of an investigation into strategies for value creation in knowledge driven organisations with particular



emphasis on intellectual capital and how to nurture this. The study was carried out amongst higher education and other knowledge organisations in Tanzania and the UK. The research was carried out as two phases. The first phase consisted of a study in Tanzania and produced a conceptual framework to aid understanding of intellectual capital in an environment of constantly increasing technological change., The second phase of the study consisted of a validation of the framework developed in phase 1 and was carried out in both Tanzania and the UK. It is thought that the final model produced as a result of phase 2 is applicable across many countries and types of organisation. The framework that has so far been developed captures the various components that affect value creation through intellectual capital in knowledge driven organisations. The framework is useful for leaders and managers in knowledge driven organisations to aid better understanding and to motivate knowledge workers towards higher success. The most important factors emerging are individual commitment, a proactive environment and workplace interaction. Other factors such as dynamism, knowledge flow and emotional capital are also emerging as important. The framework produced will help knowledge managers and workers develop and commit to strategies that embrace such factors

**Keywords:** value creation, intellectual capital, knowledge driven organisations, interaction

## **Reporting of Intellectual Capital from the Romanian Companies' Perspective**

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**Abstract:** When it comes to reporting, openness and transparency are two key underpinning concepts that can be summarized but not limited to companies' ability to report available information in a candid, accurate and timely manner. Reporting in this context refers not only to statutory and listing disclosures required by capital markets, but it covers general reports, press releases, sustainability reports, general corporate social responsibility reports and any other voluntary information. Intellectual capital reports or any reports disclosing information about intellectual capital or human capital are for the time being voluntary reports. Companies always consider the cost benefit balance when it comes to voluntary reports and intellectual capital reports are still very costly to a regrettably large number of companies in terms of time spent, lack of experience, reluctance to disclose, etc. Nevertheless, in the name of transparency, we expect that listed companies report within annual reports information about intellectual capital. Having this expectation as a

starting point, it challenged us to the current research paper. After an in-depth literature review of the papers written in area of intellectual capital disclosure and after explaining our understanding of the controversial concepts that we use throughout this study, we carry out a content analysis of annual reports published by Romanian companies listed on the Bucharest Stock Exchange (BSE). The primary objective of this research is to assess the extent to which these companies disclose information in respect of the intellectual capital as compared to the guidelines proposed by Global Reporting Initiative. This assessment is performed from both quantitative and qualitative perspectives. We believe that this study contributes to the intellectual capital disclosure literature and represents empirical evidence of the extent of the quality and quantity to which, Romanian companies listed on the BSE, disclose intellectual capital information within their annual reports. Last but not least, this study raises new research questions, begs for future studies and provides a relevant basis for comparison for both existing and coming studies carried out in the same field but for different countries.

**Keywords:** intellectual capital disclosure Romanian transparency

## **Investigating Knowledge Management Systems Development in Practice: A Case Study of a Small Marketing Consultancy**

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**Abstract:** The field of Knowledge Management Systems Development (KMSD) is growing rapidly as a field of practice and research. Yet, approaches to KMSD in organizations remain ad hoc or proprietary, while a lack of research into KMSD in practice still persists. The involvement of IT in KMS remains a false assumption, as does the requirements of management. As a result, organizations lack insight into how to effectively develop their KMS in a way that meets the needs of the organisation. This paper addresses this gap in practice and research by reporting the main elements of a case study for developing an actual KMS in a small, but dynamic marketing consultancy. The paper focuses on the principles of the practice that emerged from an Action Research inquiry, and provides informal commentary and rationale on the themes of concepts uncovered. A KMSD method emerged from practice using iterative and intertwined cycles for problem-solving and for research. The case study presented is about the problem-solving that addressed the actual challenges of the organization, for which a KMS was the primary solution. The paper describes the main elements of a continuous,

iterative, five-phase KMSD method. The first phase is concerned with making sense of the organisation and its actual business challenges and determining whether KM is an answer to these; the second is about envisioning a new business situation, while the third and fourth are about designing a KMS and exploring the use of IT for it; the fifth phase is about monitoring and evaluating the effectiveness of the continuously changing KMS. The paper offers guidance to the practice of KMSD, especially regarding what concepts need to be provided for in a KMS. It also shows how the usefulness of IT to support a KMS can be nullified by the need of knowledge workers to own what they might share.

**Keywords:** knowledge management, knowledge management systems, knowledge management systems development, method, small and medium enterprise, SME, action research

## **Knowledge-Intensive Collaboration to Combat Cyber Crime in the Asia Pacific Region**

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**Abstract:** The computer is no longer isolated devices in the vast commercial community, and takes the role as a multi-transformer along the value conversion chain in all facets of the business world ranging from daily business transactions to analysis to processing and reasoning with information concerning national security. Some executives in particular countries still maintain a concrete-like paradigm to treat the computer as an appliance to serve a sole purpose, however the Internet boom around the Year 2000 made a lasting change in the world of computer networks. The Information Superhighway advocated by former US President Bill Clinton has become a tangible matter in the 21st century. Though the global equity market melted down severely when the Internet bubble burst in 2001, followed by large number of mergers & acquisitions among technology companies, computers nowadays cluster themselves swiftly in the paradigm of the Cloud pervasively. Analogous to the effect of Crowd Sourcing in Communities of Practice, there is a material number of delinquencies, with some operated by teenagers who are eager to build up a virtual community in order to show off their talents by breaking into other computers. Even frightening, some organized gangs in the Soviet Union Bloc countries have quietly established some sorts of gifted developer networks to trade for those computer-hacking tools. The model of Do-It-Yourself, or DIY is noted. From an academic perspective, the vandals are certainly practicing knowledge sharing and retention in the dark side of the Internet. Computer crimes had a

long history since the 1930s, and fraud can also occur in traditional mainframe computers. “Cyber Crime” has emerged recently to tackle organized, unauthorized break-in of computer systems in commercial entities, financial institutes, public authorities and confidential information leakage in peer networks for the sake of profit. One good example is the blackmail of schoolmasters in Japan by some pornography operators using illegal hacking tools. Drawing on some extensive connections in the Asia Pacific forensics network of one of the authors, this paper traces out the knowledge clusters among the commercial operators and non- governmental organizational bodies of the Computer Emergency Response Team ( CERT ) in Singapore, China, Australia, Hong Kong and Beijing; a software giant’s Regional Digital Crime Investigation Unit, the latest Malaysia Cyber Crime Defense Center, and a US-based Professional Security Organization called ISC2. The Self-organization mechanism among these knowledge networks is drilled deep down, supplemented by Complexity Theory, which plays an key role in generating innovative methods to locate the Internet Bandits at all times and on the international scale. Owing to the sensitivity involved, the released content in this paper will only cover the leadership in knowledge sharing and the congruent way of discovering new threats real time. The research methodology used is predominately private interviews, literature review and Internet search.

**Keywords:** crowd-sourcing, cyber-crime, virtual community, fortified trust

## **The Choice for Intellectual Capital Statements, in Systems Integration in a Leading High-Tech Company**

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**Abstract:** Today, many organizations recognize the importance of intellectual capital models as a principal driver of firm performance and as a core differentiator. An increasing number of firms begin reporting more about the intangible aspects of their business even without the force of regulations. Human capital is the core of the IC model. In the knowledge-based economy, this is becoming the most important intangible asset for most organizations. Key value drivers for human capital are employee knowledge, skills, abilities, innovativeness and experience. The key is to capture that knowledge within the company’s structures, transferring it from individuals, to groups, to the entire organization and such that it becomes part of the organization’s “structural” capital and enhances the ability to build relationships with

customers and all stakeholders. The purpose of this paper is to present the results of an empirical study into the critical success factors for implementing the development of intellectual capital statements in relation to knowledge-management activity. In fact, the IC statement is a new form of reporting the aim of which should be to capture the firm's KM activities (Mouritsen, 1998; Mouritsen, Larsen and Bukh 2001) in order to improve managerial decision process and the evaluation of the firm by financial analysts and external stakeholders. The research is qualitative and focused on a case study. In general terms, the case method (Yin, 1994) has the dual aim of detailing the principal characteristics of the phenomena and understanding the dynamics of a given process. The company analyzed designs and develops Large Systems for Homeland Protection - systems and radar for air defence, battlefield management, naval warfare, air traffic control, coastal and maritime surveillance. The company with about 4,200 employees has fifty years of experience in systems integration and a customer base in no less than 150 countries. The firm is a leader in research and development thanks to annual investments amounting to 20% of the production value. One of the company's top management new challenge is to define a method to visualize, measure and manage the firm's intellectual capital. Thus our research question is how to draw up a "useful" instead of a "fashionable" corporate IC statement. As a first step we suggest it is important to ask "why", "what", "how" and "when" to implement it. Consequently our empirical study aims at answering these questions.

**Keywords:** intangibles, intellectual capital statement, knowledge narrative

## **Communication and Knowledge-Sharing Set-ups Within International Engineering Companies**

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**Abstract:** For international companies based in countries with high wages and a limited national market, effective international relations are important. Two central dimensions of a working relation are effective communication and knowledge sharing. The purpose of this article is to study the perceived effects of intra-organizational knowledge sharing from combinations of communication channels and knowledge carriers between R&D units in Sweden and manufacturing units in China, with the aim to propose suitable combinations of communication channels and knowledge carriers in order to create high-quality knowledge sharing for companies. In order to reach the aim, a web-based questionnaire was sent out to 45 Swedish engineering companies operating in China. In total 32 companies (71%) answered the

questionnaire with complete answers received from 18 companies (40%). Results from the study show that knowledge sharing still is mainly performed by using physical knowledge carriers (such as drawings and prototypes) instead of digital ones. However, for the respondents who use digital knowledge carriers frequently (such as digital prototypes and common databases), the perceived knowledge quality is higher than for those who don't. The main barriers in knowledge sharing are perceived as language, time restraints and different knowledge levels between the knowledge-sharing parties. There is an indication that a more frequent use of communication channels has a negative effect on perceived knowledge sharing at the same time as cooperation is improved. Possible explanations are that there is information overload, that the perceived low level of knowledge sharing has triggered an increase in communication, and that social communication increases the perceived quality of cooperation but not knowledge sharing. Further investigations are necessary to clarify the causality. The main conclusions are: 1. Use of multiple communication channels improves the perceived quality of cooperation (but not knowledge sharing). 2. Use of IT-based knowledge carriers (digital prototypes, common databases and web-based solutions) enables both knowledge sharing and cooperation. However, IT-maturity and high acceptance of IT-based knowledge carriers need to be developed within the studied organizations. 3. Use of digital prototypes should be complemented with reports when IT-maturity is low. 4. Frequent face-to-face meetings are important since they break down communication barriers and enable sharing of tacit knowledge.

**Keywords:** international companies, communication set-up, knowledge sharing, Chinese operations, R&D-manufacturing interface

## **Networks of Interorganisational Knowledge Development Within the Open Innovation Context: The Case of R&D Intensive Start-ups**

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**Abstract.** The new realities of innovation management are increasingly focusing on open innovation concept, which provides a comprehensive framework for the new, rapid and shared knowledge development process in the new technology areas. The practical implications of the open innovation theory cause many conceptual and also practical problems. The question of actual openness of innovation remains at the top of theoretical and practical discussions as it refers to the development of intellectual capital and its retention, which tends either to remain within certain boundaries of the

network of predefined firms, either to remain tacit and distributed across network members, that restricts its reuse and application for other than initial goals. Still, in both cases the knowledge sharing within new technology intensive businesses tends to be restricted and limiting knowledge development opportunities within the open innovation boundaries. The theoretical and practical research has advanced so far to the specific areas of knowledge sharing and transfer within strategic alliances, business partnerships, and other formal networks. Some research has been focusing on the knowledge creation in the open, soft networks, basically focusing on social communities, and in some cases – communities of practice. The research of knowledge transfer has provided us with many important implications on knowledge transfer preconditions, including research on absorptive capacity, integration of various knowledge sources for innovation, and the behaviour of organisations within collaborative networks, including the alignment and development of organisational structures and cultures for collaboration and knowledge transfer. Still, the knowledge development within organisational networks and facilitation of open innovation remains an important research question. The varieties of networks occur with the different knowledge development goals, and businesses are engaged in a variety of underpinning networks. The issue becomes especially complex in a case of the new high technology ventures that act under the time pressure, and are dealing with technology, market and institutional uncertainties. This paper focuses on the interorganisational knowledge development networks for open innovation. The key questions are focused on the revealing the role of interorganisational network in the open innovation development, the rationales for inclusion of various actors into the knowledge development networks, and contribution of knowledge for innovation by various organisations. Two different knowledge development networks, representing a closed and open interorganisational network for open innovation approach are analysed. The research method applied is a case study approach, which is best suited to the objectives of our study: constructing theoretical approaches and revealing still relatively unknown aspects of the relationships being studied. The interorganisational knowledge development networks chosen for analysis come from the high technology industry (optics and medical devices, NACE 33). Both networks are facilitated by globally born SME's (*Vittamed*, and *Ekspla*) originating from Lithuania, a small catching up country.

**Keywords:** networks, open innovation, knowledge development, R&D intensive start-ups, case study

# Acquisition of Experience-based Knowledge from the Swedish Armed Forces International Missions; a Comparison Between Groups and Individuals

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**Abstract:** The world is rapidly changing and industrial war has been replaced with “*war amongst the people*” (Smith 2007, p. 267). Today many armed forces are faced with new responsibilities and are operating in new environments, necessitating a higher ability to identify and implement improvements more rapidly than before (NATO SG, 2008). The Lessons Learned (LL) process helps to suggest solutions to identify shortcomings and facilitates in making positive experiences durable (French Air Forces, 2008). In organizational learning, there is a pronounced need to get hold of important experience, to reduce repetition of mistakes and facilitate for high-quality experiences in purpose to improve. Those experiences represent an important input to the LL process, which in the end produces results that will be instilled back into the organisation. A serious weakness in several organizations seems to be that numerous experiences are poorly reported. Unfortunately there is little research conducted in the military field. On the contrary, there is a huge need in several organizations to get a LL-process implemented. This paper will focus on the initial parts in the LL-process, observation, report and some of the early analysis. The aim is to compare group performances with individual performances and ask if groups produce more mature experience-reports than individuals. The study was conducted within the Swedish Armed Forces and all participants were Swedish soldiers earlier deployed on international missions. The participants were asked to report experiences (problems, difficulties) from their assignment, using two different methods. Would *method 1*, with conditions that facilitate a united effort to generate thoughts and a critical discussion, improve the progress to produce additional or more mature experience reports, compared with individual performances? The results showed that groups produced somewhat higher scaled and more mature reports than individuals. No indication was found that any of the two methods used in the experiment produced an increased number of reports.

**Keywords:** experience-based knowledge, consensus-effort, critical discussion, observe, experience report, lessons learned process



# **Resource Scarcity in the Context of Access to Information in the Knowledge Economy and its Impact on Technological Progresses**

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**Abstract:** *'If you can touch it, it's probably not worth very much'* is a saying specific for a knowledge economy, where the main productive assets are intangible. Nowadays, the access to knowledge through the internet and the possibility of mass-diffusion of knowledge, is reshaping our understanding of technological progress. Additionally, as consumption grows, some natural resources become scarce, leading to an increase of the price for accessing and using them. Could the growing awareness of the scarcity also lead to further research and development? It has been shown in various studies that technological progress can ameliorate the scarcity of natural resource commodities, but taking on a different perspective, could the scarcity of the non renewable resources determine the pace of R&D intensity, eventually leading to technological progress? The study will show and relate apparently independent and not correlated variables from 2 main areas: knowledge and non-renewable resources, by means of guiding the study towards underlining the technological progress enabled by the development of the 2 fields. Therefore, the contribution of this study is made by using an econometric method, combining economic theory with statistics, to analyze and test hypothesis, and underline some of the factors determining the gross domestic expenditure on R&D.

**Keywords:** non renewable resources, knowledge management, technological progress, R&D

## **Intellectual Capital Performance and Government Ownership: An Analysis of Indonesian Banks**

**Ronny Prabowo and Like Soegiono**

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**Abstract:** There have been numerous articles investigating the relationship between ownership and performance. Specifically, Saleh et al (2009) investigate the effect of various types of ownerships (government, management, and foreign) on intellectual capital performance of Malaysian firms. Our article attempts to analyze the effect of specific type of ownership – government ownership – on intellectual capital performance of Indonesian banks. We choose banking firms since they are intellectually intensive firms

(Firer and Williams, 2003). Indonesian banking firms offer unique research context since government ownership can be classified into central and provincial government ownership. We conjecture that government ownership hurts firms' intellectual capital performance. Further, provincial government ownership has more negative effect on intellectual capital performance than central government ownership effect. These conjectures are based on Shleifer and Vishny (1994) and Sapienza (2004) assertion that state-owned enterprises have higher exposure of political intervention that potentially hurt state-owned enterprises performance and popular allegation that Indonesian state-owned banks are ineffective in utilizing their assets (Basri, 2009). Besides, Qian et al (2009) argue that firms owned by non –central government (province, city, county) suffer higher political intervention than firms owned by central government (at least in Chinese context). In Indonesian context, banks owned by provincial government are often alleged to serve political power of provincial government. Such banks suffer higher exposure of political intervention than banks owned by central government (Asbanda, 2009). Due to the number and ownership structure of Indonesian banks change each year, we have to conduct cross sectional analysis. We analyze the Indonesian banking industry of year 2008 since it is the latest available year (during the research completion). We use Value Added Intellectual Coefficient (VAIC<sup>TM</sup>) developed by Pulic (1998) to measure firms' intellectual capital performance. Government ownership is defined as direct and indirect ownership. We cannot reject the null relations between government ownership (including provincial government one) and IC performance. In other words, we cannot empirically support our conjecture that government ownership (especially provincial one) hurt IC performance. On the other hand, the percentage of fee-based income to total operating income has significantly positive effect on IC performance. We speculate that 2008 global financial crisis neutralize the hypothesized negative relation between government ownership and IC performance.

**Keywords;** intellectual capital performance, bank, Indonesia, VAIC<sup>TM</sup>, government ownership

## **How do key Performance Indicators Metrics Help Advance Knowledge Management and Ensure its Sustainability?**

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**Abstract:** Statistical figures are compelling means to convince top management of the importance of Knowledge Management (KM). External statistics are usually less impactful than internal ones. However, and in the

absence of internal data at the early stages of KM initiatives, many companies gather published data for similar industry. In the present case, we compiled information from previous experiences of companies in the same line of business; therefore, management buy-in was obtained, and the KM project was successfully implemented; but there was a need to generate internal numbers to support all the wonderful claims of KM, and convince all KM players from the technician to the organisation president; the ultimate aim is to have a sustainable Knowledge Management project across the organization, with visible, tangible, and measurable results. Armed with the assertion “data is power”, Key Performance Indicators (KPIs) and other metrics were devised and incorporated into our KM processes; these measurements are being pulled out systematically, and published to the whole audience. KPIs measured included the effect of KM on (i) customer satisfaction, (ii) business impact (i.e. savings), (iii) number of projects completed on time, (iv) and the number of technical reports generated per unit of research area. Over the past few years, the data we generated shows a significant increase in customer satisfaction with our organization services; measurable savings were recorded each year; project timely completion indicator rose to unattainable levels as compared to previous data; the electronic technical and scientific library saw an accumulation of valuable know-how reports. Knowledge re-use as evidenced by reliance on internal resources was the norm and routine practice. On the other hand, many other qualitative observations, like effect on health, safety, and the environment are being quantified for inclusion in the KPI reporting. We believe that numerical values coupled with other tangible concrete results will ensure a viable and sustainable KM in our organization. Data analysis and interpretation will be further detailed and presented This paper addresses the relationship between the value of data and KPIs to the sustainability of knowledge management (KM). It proves that auto-generated internal statistics is a powerful tool to convince and re-assure the organization that KM can indeed increase efficiency, enhance customer satisfaction, and drive savings.

**Keywords:** KM, sustainable, metrics, data, KPI, statistics, know-how

## **Identifying Stakeholders in the Andalusian Agency of Health Care Quality**

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**Abstract:** The term ‘stakeholder’ has assumed an important role in the public sector in the last 20 years. Stakeholders are any group or individual who can affect, or is affected by, the achievement of the organization’s objectives. The

present article describes the process of identification and mapping of the different stakeholders of Andalusian Agency of Health Care Quality (AAHQ), an organization responsible for healthcare accreditation in Andalusia (Spain). Stakeholder analysis process was made by the Steering Committee and the identified groups were qualitatively categorized in a matrix according to two attributes: influence and importance. According to the analysed attributes, they fit into one of the 4 boxes. The identification and categorization of the stakeholders described generates knowledge about the important actors of the organization, facilitating not only the understanding of their behaviour, interrelationships and interests, but also the improvement of the decision making processes of the organization itself.

**Keywords:** stakeholders, public sector, quality, knowledge management, mapping process

## **The Board of Directors, Executives and Risk Knowledge Management**

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**Abstract:** Enterprise Risk Management (ERM) and Knowledge Management (KM) both encompass top-down and bottom-up approaches developing and embedding risk knowledge concepts and processes in strategy, policies, risk appetite definition, the decision-making process and business processes. The capacity to transfer risk knowledge affects all stakeholders and understanding of the risk knowledge about the enterprise's value is a key requirement in order to identify protection strategies for business sustainability. There are various factors that affect this capacity for transferring and understanding. Previous work has established that there is a difference between the influence of KM variables on Risk Control and on the perceived value of ERM. Communication among groups appears as a significant variable in improving Risk Control but only as a weak factor in improving the perceived value of ERM. However, the ERM mandate requires for its implementation a clear understanding, of risk management (RM) policies, actions and results, and the use of the integral view of RM as a governance and compliance program to support the value driven management of the organization. Furthermore, ERM implementation demands better capabilities for unification of the criteria of risk analysis, alignment of policies and protection guidelines across the organization. These

capabilities can be affected by risk knowledge sharing between the RM group and the Board of Directors and other executives in the organization. This research presents an exploratory analysis of risk knowledge transfer variables used in risk management practice. A survey to risk management executives from 65 firms in various industries was undertaken and 108 answers were analyzed. Potential relationships among the variables are investigated using descriptive statistics and multivariate statistical models. The level of understanding of risk management policies and reports by the board is related to the quality of the flow of communication in the firm and perceived level of integration of the risk policy in the business processes.

**Keywords:** risk knowledge management, risk control, knowledge management, enterprise risk management, communication, knowledge transfer, knowledge sharing

## **An Empirical Test on Knowledge Management Life Cycle Model at Turkish Petroleum Oil Industry Dealer Firm**

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**Abstract:** Most of the knowledge management life cycle models (KMLCM) in the literature are not only focusing on the processes of knowledge in organizations but also emphasizes the role of knowledge. The theoretical background of this study is based entirely on Sagsan's (2007) "A New Knowledge Management Life Cycle Model" (KMLCM), which are sequentially constituted at the five fundamental processes of knowledge such as creating, sharing, structuring, using and auditing with subtitles at the organizational level. Knowledge creating includes tacit and explicit dimensions of knowledge; knowledge sharing could be succeeded through establishing social and technological communications infrastructure channels; knowledge could be structured organized via knowledge mapping techniques as well as knowledge retrieval and storage systems; knowledge could be used for organizational products, services and decision making process. The last step of KMLCM is knowledge auditing, which allow us to control knowledge capacity in the organization based on the organization's intellectual capital and knowledge assets. This study aims at testing this model at the oil industry firms, which are distributing Turkish Petroleum (TP) oils as a dealer in Turkey. It is also well-known Turkish Petroleum brands. Thus, the empirical test of the study will prove the findings in the way of applying knowledge management strategy in this firm. The results were discussed by considering each of the knowledge management processes/stages. The findings about implementing

KMLCM in the firm are also differentiated at twofold. The first is about the stage of organizational life cycle (deliberate, institutionalized, innovative, rationalized, entrepreneurial) and the second is about the organizational structure such as formalization, centralization, professionalization, specialization and size. In conclusion, it could be said that both organizational life cycle stages and organizational structure variables are directly related to implement KMLCM in the firm. At the end of the study, two fundamental questions were designed for the future research.

**Keywords:** knowledge management life cycle models, knowledge processes, knowledge management applications, organizational structure, organizational life cycle, Turkish Petroleum Oil Industry Dealer Firm

## **The Development of an Intellectual Capital Index for Malaysian Companies**

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**Abstract:** Intellectual Capital (IC), a value creator of today's economy, is of critical importance to a company's sustainable competitive advantage. However, it is difficult to measure IC which comprises the intangible or soft assets of a company. A number of models have surfaced in the attempt to measure IC. This paper aims to review these measurement models and highlights their strengths, weaknesses and reliabilities based on previous literature and research. In addition, this paper proposes a model to measure IC in the context of Malaysian companies. A review of literature on the components and measures of IC relevant to the value creation of a company was focused in developing a model for Malaysian companies. The proposed model which is known as the Malaysia Intellectual Capital Index (My-ICI) envisages as a way forward in an initial effort to assess IC for Malaysian companies. Attempts are made to quantify IC elements to arrive at an IC index for the companies. The development of a more structured IC index should assist companies to monitor and manage their IC more efficiently. The IC index determined in this research should also be of interest to various interest groups, supplementing them with information on IC and utilise an IC index for their decision making process. The relationship between IC index and company performance and market value can be used for prediction. In addition, IC index should aid the accounting profession in developing a more systematic and standardised external reporting for IC including disclosing an IC Index in the annual reports in the future.

**Keywords:** intellectual capital, IC index, My-ICI, Malaysia

## **Investigation of the Communities of Practice in MTR Corporation's iShare Portal**

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**Abstract:** Hong Kong's MTR Corporation - Projects Division have implemented a knowledge management intranet portal called iShare. As part of the Hong Kong Polytechnic University MSc Knowledge Management programme, students (the Study Group) conducted a guided project on the Communities of Practice (CoP) portion of iShare. The Study Group gathered information on the existing communities with the aim of identifying and investigating a low-activity community. The team then went on to suggest interventions that could be implemented to bring more activity into the CoP. During the initial investigation the Study Group found that most CoPs followed the expected trend of activity proportionate to membership. There were, however, several CoPs that did not follow this trend. Most notable was the Tunnelling CoP, which had one of the largest memberships, a large number of documents posted online, but one of the lowest online activity rates. This CoP was chosen for further investigation. Through interviews with the iShare Team and a questionnaire to members of the CoP, the team was able to determine that the CoP has a strong domain and large community, but with little visible common practice. Nevertheless, the questionnaire identified a desire for more activity. In light of these findings, the Study Group suggested several possible interventions aimed to improve the activity rate of the CoP. The first recommendation was to organise regular face-to-face meetings so the members could get to know each other and develop a stronger community. Initial meetings could be used to update the CoP charter and help the members take ownership of the community. Another task to be undertaken is the development of a taxonomy. Tunnelling is a very large domain, and the community must decide which areas of the domain they are interested in. Developing a taxonomy will help them define their areas of interest. The face-to-face community can then start on-line asynchronous interactions such as discussion threads. Discussions, collaborations on community projects and collecting useful documents will help the community grow and start capturing their knowledge. The second recommendation revolved around the roles within the CoP. The members should identify the required roles that were needed for the CoP, such as facilitator, librarian and technical steward. Members had to be found who were able and willing to take on these roles. The key factor is that these members should be passionate about their roles. Competence can be developed, passion is intrinsic. Once the members had been identified, training should be provided

so they fully understand their roles and duties. The study also indicated that there were some misunderstanding amongst members about what CoPs are. Therefore continued education to all staff will help develop understanding and acceptance as well as help embed the CoP into the culture of the organisation. The issues encountered in the study of CoPs are generally what one would expect from a young CoP during the coalescing stage. With correct guidance and intervention, the CoP can develop into a strong and vibrant community that will benefit both the members and the organisation.

**Keywords:** MTR corporation, communities of practice, coalescing stage

## **Knowledge Barriers When Launching new Telecommunications for Public Safety**

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**Abstract:** Cooperation between organizations engaged in public safety and emergency response is mostly regarded as self-evident and communication, coordination and interoperability are key elements. Although the participating organizations are quite familiar with cooperating within their own organizations they are less familiar with inter-organizational cooperation. To make cooperation within and between organizations more efficient, a new radio communication system is being introduced in Sweden. Adoption and use are the prerogative of the user organizations. Each organization pays for the use and set-up of the system as well as the services utilized in the system. This paper aims to identify knowledge barriers and examine how these affect the adoption of the system by the user organizations. The focus is on the user's view of the implementation and use of the system. The goal is to identify better knowledge-sharing methods for effective inter-organizational cooperation. Based on 49 interviews and secondary data, this study shows that organizations launching large-scale systems need to take into account a number of social and technical factors. These influence the strategy and methods for launching the system. The study emphasizes the importance of tailored usability requirements for this sector. Interfaces and functions need to be shaped for vital, stressful and often insecure cooperation. To improve cooperation between different user organizations it is not sufficient to choose a system that has financial benefit or technical capability. Extensive work and training are necessary to bring about cooperation. Because of cultural differences and different regulations the concept content varies from one organization to another. It also leads to different prioritizations and different views of the goal, thus putting user organizations and the launching organization on hold. Measures need to be taken to avoid getting caught in a



Catch 22 situation. This must be overcome to achieve full cooperation within a reasonable time and the responsibility for this must be defined.

**Keywords:** mobile broadband, radio, cooperation, public safety, emergency response, system roll-out

## **An Empirical Study of Knowledge Management Effectiveness and Organizational Innovation in Malaysian Manufacturing Firms**

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**Abstract:** Today, the world is entering a knowledge-based era. The manufacturing firms in Southeast Asia countries, including Malaysia, are shifting their economies model from labor-intensive to knowledge-intensive, where firms are expected to immerse themselves in high value added activities such as developing and adopting new products, processes, and services, to continually sustain in this global competitive environment. The introduction of new ways usually leads to the development of new products or services, the changes in managerial practices and the emergence of new organizational structures, which is usually referred to as organizational innovation. There are two regular types of organizational innovation within the manufacturing environment relates to technological innovation and administrative innovation. Both technological innovation and administrative innovation depend to the highest degree on knowledge. Hence, knowledge management has been viewed as an instrument to assist an organization in identifying gaps in knowledge and providing process to fill up gaps to aid organizational innovation. Hence, the purpose of this research is to examine the influence of knowledge management effectiveness (knowledge acquisition effectiveness, knowledge sharing effectiveness and knowledge application effectiveness) on organizational innovation (technological innovation and administrative innovation). Survey data was rendered from a sample of 171 large manufacturing firms in Malaysia. The regression results indicated that among three dimensions of knowledge management effectiveness, knowledge acquisition effectiveness has a significant positive influence on both technological innovation and administrative innovation. The results offer several suggestions to manufacturing firms in Malaysia. In particular, organization can manage knowledge effectively in order to increase organizational innovation. This paper also wrap up with discussion, limitations and implications, and also the suggestions for future study.

**Keywords:** technological innovation, administrative innovation, knowledge management effectiveness, manufacturing firms, Malaysia

## **The Contribution of Knowledge Management to eBusiness Activities**

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**Abstract:** This article tries to be both a review and an agenda-setting piece. It argues that knowledge management suffers from conceptual and definitional ambiguity, oversimplification of its development processes, and methodological limitations. Nevertheless, there is a consensus in business and academia that knowledge is a key component of success and allows firms to achieve and sustains competitive advantages. In a digital era, these advantages arise from the potential of data and information that can be gathered, processed, shared, and used to improve eBusiness activities. Thus, this research bridges the gap in the assessment of knowledge management and eBusiness relationship, by applying a structural equation model to a large database sample of KM activities performed by European and American firms.

**Keywords:** eBusiness activities, ICT, KM, innovation

## **The Management of Academic Knowledge Based on Organizational Learning**

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**Abstract:** The paper explores the problems of transformation of universities into research and innovative education institutions which integrate science, learning and innovations. This implies the system of management of academic knowledge based on the principles of self-learning organizations. The technological basis is eLearning and network for setting the relations between professors, teachers and workers in the integrated information educational area based on information and communication technologies. The organizational background is the support of activities of the distributed departments (chairs) on the basis of information centers as a collective and collaborative environment to design and update the study content and to carry out organizational learning on the basis of professional competences.

**Keywords:** academic knowledge, intellectual capital, organizational learning, eLearning, integrated knowledge space, information centre of disciplines, integrated information and educational environment

## **Knowledge Management on Student Centered Learning Methods**

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**Abstract:** Learning is one of the few things which can not be limited or ignored. It is also a major source that help people to grow up as well as it plays the top role in today's education system. As the life itself is made out of learning, in the classical and the traditional approach of college teaching, most class time is spent with the instructor lecturing and the students listening and watching. The students are mostly passive and there is only one way learning which is from instructor to the students. The overall contribution of the students is very weak in this system. Technical Education Faculty of Firat University in Turkey is training technical teacher for vocational and technical high schools. At the Department of Computer Science Education we have established student centered learning methods since 1998. Some courses such as Computer Aided Education, Expert Systems, Multimedia Systems, Computer Systems, Robotics, Networks, etc. have offered in student oriented learning method and as well as in the traditional approach where the professor was lecturing and students were listening. In the student centered learning methods, the students were distributed into groups where each group has 5 to 6 members. A topic has given to the students that should be presented to the class. The students have organized the teaching methodology themselves. They have used modern teaching tools like projectors, computers using videos, animation, and simulation software. The teaching period have recorded as videos to watch how the course was held by the students. The instructors have evaluated the students considering their knowledge, teaching effectiveness, and their interaction with the audience. The students who have been educated in the student centered learning and traditional learning methods have taken the same final exam. The exam has two parts where in the first part classical and theoretical questions has been asked, the second part of the exam has involved with applying the theoretical information in the laboratories. In this study, the success of the students who are trained in student centered learning and traditional learning methods are analyzed and compared. The role of the knowledge management in the student centered method; weaknesses and strengths of the both methods are discussed and compared. The grades of the students that have been

obtained since 1998 at the Computer Science Education Department evaluated and finally some recommendations are offered.

**Keywords:** student centered learning, method, traditional learning, knowledge management

## **Social Network Analysis: A Case Study in Turkey**

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**Abstract:** In the last decade, some online social networks such as YouTube, Facebook, Twitter, LinkedIn and Jhoos have been accessed by a large number of internet users. Because of these networks, most users spend their spare time surfing the internet. Although social networks provide a number of benefits in terms of developing and sharing knowledge, there are some disadvantages that can make a person's life really miserable on occasion. Within the last few years in Turkey, some secret videos and voice recordings have been broadcast on these social networks without the permission of the people involved. Therefore, some people commit suicide because of the public revelation of their private lives. More than a year ago, some people were arrested and put into jail because they had been broadcasting private recordings on social network sites. Social networks can be used as free advertising environments; even these pages can be used as a place where links can be posted to pornographic websites. Terrorist groups can use social networks not only as tools for propaganda, but also as a communication environment with their members. Because of Turkey's anti-propaganda campaign and Mustafa Kemal Atatürk, who is the founder of the Turkish Republic, access to YouTube in Turkey has been forbidden. In this study, a survey was conducted using a number of people in Turkey via the internet in order to measure and evaluate the role of social networks on human behavior. There were more than 20 statements presented to the social network users, where the number of respondents was just over 1000. They were also asked to comment on the social network situation. The survey was evaluated using SPSS software. The relationship between age, gender, income level, the person's social life etc. was investigated and critiqued. The advantages and disadvantages of social networks were discussed. At the end of this paper, some recommendations will be given.

**Keywords:** social networking, YouTube, Facebook, LinkedIn, Jhoos

# **Universities' Organizational Learning Rate Dependence on the Level of Participation in the Higher Education Market: The Case Study of Estonia**

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**Abstract:** A modern university must be a flexible and dynamic organization, which is able to successfully operate in a constantly changing environment. In order to fulfil this condition the establishment must conform to the criteria of the learning organization. Using the criteria of the learning organization, the authors compare four institutions providing higher education in Estonia where percentage of state commissioned students is different: Estonian Business School (EBS), Tallinn School of Economics and Business Administration of Tallinn University of Technology (TSEBA), Faculty of Civil Engineering of Tallinn University of Technology (BF) and Faculty of Mechanical Engineering of Tallinn University of Technology (MF). The institutions were selected so as the market participation rates were different. Market participation rate is denoted by the ratio of students who pay themselves for the studies. In order to identify whether and to what extent competition or lack of competition in the market affects the organizations' learning capacity the authors compare four institutions providing higher education using Watkins & Marsick's organization development principles as the theoretical basis of the empirical study. The results of the study show that the extent to what a university has to compete on market of higher education has a significant impact on organization's learning capacity. The investigated institutions of higher education were analyzed by all seven dimensions of the learning organization and different groups of employees (managerial staff, teaching and research staff, administrative staff). The results of all interviewed groups allow to state that there is a light positive correlation between the extent to what a university has to compete on market of higher education and the organization's learning capacity. The organization's learning capacity of the investigated universities is also higher compared to the international average.

**Keywords:** learning organization, organizational learning, the dimensions of the learning organization questionnaire (DLOQ), public and private universities, learning rate of organization

## **Academic Vocational Training: Searching for a new Paradigm**

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**Abstract:** Danish society puts a high value on education which is traditionally seen as a crucial vehicle for development in all spheres of social and economic life. Large sums are spent on work-related adult learning, an important example being academically based masters programs. Yet, the actual effects of such educational investment in terms of improved workplace efficiency remain obscure both with respect to the organization and the individual. Academically acquired knowledge is generally admitted not to affect work-related outcomes to any significant extent. The three authors of this paper are all involved in planning, managing and teaching at masters programs at Aalborg University, Denmark. Programs are carefully designed with a view to strengthening the link between the educational space (the curriculum and academic priorities) and the students' habitual working environment (the organizations from which they come). Starting from a theoretical viewpoint based on traditional learning theory, supplemented by much new research on the transfer of training, as well as on Donald A. Schön's classic work on practicum as a crucial component in the training of practitioners, our paper presents and illustrates, with examples, a framework for designing educational programs which can help make academic teaching relevant to production-oriented life in organizations. The paper may be read as a statement from which criteria for evaluating the said masters programs can be generated.

**Keywords:** innovative teaching, educational partnerships, workplace development, transfer of training, practicum, reflective practitioner

## **Intergenerational Knowledge Transfer at Workplace: From a Sociological Perspective**

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**Abstract:** With the rise of knowledge economy, knowledge has become an important strategic organizational capital. Knowledge transfer has been considered as the basis of organizational competitive advantage, and related theories and practices flourish. Meanwhile, age diversity may be the most conflict-ridden diversity issue of the early 21st century. In recent years, intergenerational knowledge transfer has aroused the concern of edge organizations, which roots from baby boom generation retirement, especially in aerospace community. Intergenerational knowledge transfer is complex

and important for organization sustainability, but many areas remain uninvestigated. The author's extensive domestic and foreign literature review shows that, while knowledge transfer is an active field, few papers have discussed intergenerational knowledge transfer from sociological perspective. Meanwhile, in the existing literature of intergenerational knowledge transfer, some studies focus on characteristics such as tacitness and other empirical research has focused on generational differences. However research on the basic questions, such as definition, characteristics, analysis framework and transfer mechanism are still in the exploratory stage, the common awareness has not yet formed, and there are many gaps in the field. In this paper, the authors: (1) review existing research on intergenerational knowledge transfer, summarize the existing research findings and search a new direction of the field; (2) provide an analysis framework for intergenerational knowledge transfer from properties and factors dimension, including knowledge, characteristic of generations, intergenerational relationships and knowledge transfer mechanism; (3) review the definition of intergenerational knowledge transfer from a sociological perspective and define it as the communicative process of knowledge from a generation so that it is learned and applied by another generation; (4) compare the differences between generational knowledge transfer and intergenerational knowledge transfer in terms of type, content, mode, and mechanism.

**Keywords:** intergenerational knowledge transfer, intergenerational relationship, knowledge transfer, analysis framework

## **Case Study of Knowledge Management in China Academy of Launch Vehicle Technology**

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**Abstract:** Firstly, the multiple challenges with that the Chinese aerospace industry faced including the ranks of young, reduced product development cycles, and market competitive pressure were summarized. Knowledge management has become a priority. Currently, some problems are to be solved, including the more knowledge is accumulated, but the lower utilization and lower transparency of knowledge, and lack of knowledge sharing. Solutions to promote knowledge utility were presented that including strategic plan for knowledge management, the business knowledge services platform (KSP) and enterprises knowledge base systems. The connotation and outline

of strategic plan for knowledge management in China Academy of Launch Vehicle Technology (CALT) were described. The knowledge services platform was represented in details, including knowledge expression and knowledge acquisition process, knowledge navigation methods based technical map. The construction of enterprises knowledge base systems was discussed. The application effect of KSP and knowledge base in China Academy of Launch Vehicle Technology was points out, including knowledge accumulating and reasonable evaluation of knowledge contribution etc. Finally the future vision of KSP and application of KSP was provided, such as knowledge based engineering and tacit knowledge acquisition based on cooperation environment and knowledge based technological innovation etc.

**Keywords:** Knowledge services platform, strategy plan of KM, enterprises knowledge base systems, evaluation of knowledge contribution, enterprises knowledge base systems

## **Using Risk Assessment Technique to Consolidate Indicators in IC Process: Case Study of Suanboonyophatham School**

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**Abstract:** This paper discusses how to implement the intellectual capital process and the risk assessment for the Suanboonyophatham School into having a systematic and practical management mode. The paper demonstrates the seven steps process that encourages teachers' participation. The process was conducted through an exploratory method in co-operation with the Suanboonyophatham School's management staffs (56 teachers). The process aims at the teachers' full participation in every step. The school teachers' knowledge, ideas and experiences were the fundamental concept of the school's vision, strategies, Key Success Factors (KSFs), indicators, risks, and a contingency plan. By using an intellectual capital process model, the teachers formulated the school's vision. The vision was used to identify 4 strategies. From the strategies, the teachers identified 25 Key Success Factors. From 25 KSFs, the teachers identified 86 indicators to measure the key success factors. In addition, the school applied a risk assessment technique to consolidate indicators to a smaller number. The teachers identified 37 risks from 25 KSFs. From here, the 8 major risks were identified by using a risk assessment matrix. The 8 major risks linked to 20 key indicators that must be monitored and managed comprehensively. The Suanboonyophatham School can focus on the right area of management. Thus, the school's management created an urgent contingency



plan to monitor the situation in the school for preventing the risks and managing the indicators. This paper allows practitioners to reflect on a case for implementing intellectual capital process and using a risk assessment technique to create a strategic management plan and consolidate indicators for a public organization.

**Keywords:** Intellectual Capital, Risk assessment, Strategic management

## **Communities of Practice for Open Innovation: Enabling Organizational Creativity?**

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**Abstract:** “Open innovation” is often mentioned as a successful model for innovation, but little research has investigated if this model can provide the necessary prerequisites for a creative environment essential to innovate. This paper aims at analyzing the prerequisites of creativity from the perspective of a community of practice that is emerging in an open innovation arena. It is also meant to contribute to an increased understanding of how creativity can be managed in this context. We present a theoretical overview of open innovation, communities of practice and of organizational creativity. This indicates that the community of practice that is emerging in this open innovation context should be able to fulfill previously established prerequisites for creativity (Amabile et al., 1996). We present empirical findings from a case study of SAFER, an open vehicle and traffic safety innovation arena, to see if the prerequisites could be fulfilled *in practice*. The findings are based on interviews with representatives from the 22 participating organizations at SAFER. For the qualitative analysis of the empirical data, an established model of assessing creativity in work environments has been used as a framework (Amabile et al., 1996). The findings in this paper indicate that despite the promising theoretical conditions for creativity in open innovation, in practice, the prerequisites have proven hard to live up to. Our analysis show that the factors that *do* contribute to making SAFER a functioning open innovation arena, are strongly related to key characteristics of a CoP; the blend of different backgrounds of workers, the highly motivated persons attracted to this arena, the external ties enabling knowledge sharing as well as strong internal ties and a shared vision among the practitioners.

**Keywords** innovation management; open innovation; organizational creativity; communities of practice; case study; qualitative research

## **Social Technographics and Business Strategies**

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**Abstract:** Many companies approach social computing as a list of technologies to be deployed as needed to develop and implement business strategies. This paper argues that a more coherent approach should be adopted to analyse target customers and determine what kind of relationship to be built with them, based on what they are ready for. As a business research tool, Social Technographics can be used to categorize social computing behaviours into a ladder with deferent levels of participation, and analyse a population according to its participation in these levels. Brands, Web sites, and any other company pursuing social technologies should analyse their customers' Social Technographics first, and then create a social strategy based on that profile. The paper concludes that Social Technographics can be very helpful to any business trying to embark on the journey of marketing their products and services to the growing community of social networking participants.

**Keywords:** social media, social technologies, social technographics, business strategies

## **A Study of the Similarity in Mental Models and Team Performance**

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**Abstract:** A mental model is the internal representation of reality held by individuals. In a team, members continue interacting with each other, and shared knowledge is developed within the team. Tacit knowledge that is shared and related to teamwork can be regarded as a shared mental model (SMM). SMMs are recognised as some of the influential factors to team performance since they concern how a team views and acts on the world around it. A number of studies have pointed out that team members in high-performance teams share more similar SMM than average teams. This is worth further investigation since the teams that have been studied in the literature are mostly military teams and student teams. Moreover, some of the methodologies used did not address the collective nature of SMMs. This study explores the SMMs of eight Six Sigma project teams in an electronics

factory in mainland China. Collective sensemaking workshops were organised for the eight teams and twelve themes relating to teamwork were generated. A relatedness analysis was then conducted to visualise the relationship between these themes. The results of this study are aligned with the major conclusions from the literature. It was also found that high performance teams perceived stronger interrelatedness between the concepts than average teams did. This study contributes to the SMM literature by giving additional insights and to the methodology aspect through the use of a collective sensemaking workshop.

**Keywords:** shared knowledge; shared mental model; Six Sigma teams; sensemaking



# **PhD Research Papers**



# Organisational Cultural Values for Successful Knowledge Sharing: The Case of Malaysia

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**Abstract:** In a dynamic and competitive environment, human resources and knowledge are acknowledged as critical contributors for organisational competitiveness (Hislop 2003; Oltra 2005). Organisations are said to remain competitive if their resources are rare, valuable, imitable and unlikely to be substituted (Barney 1991; Wernerfelt 1984). While human resources do invest their know-how and expertise, thus contributing to organisational competitiveness, their decision to contribute will be influenced to some extent by their work environment. Evidence in the literature suggest that organisational culture can significantly influence knowledge sharing success (Al-Alawi, Al-Marzooqi and Mohammed 2007; Ruppel and Harrington 2001). Human resource management (HRM) plays a significant role in fostering the culture of sharing through the design of its practices (Bollinger and Smith 2001; Greengard 1998). This research explores values for nurturing knowledge sharing success preferred by employees. It investigates the role of six organisational cultural values among knowledge workers in two Malaysian States. These values are collaboration, innovativeness, formalisation, autonomy, expertise and trust. They play a significant role in defining the relationship between knowledge workers' expectations and opportunities to break obstacles to knowledge management outcomes. Written questionnaires were completed by 270 knowledge workers in all levels of four Malaysian IT companies. Exploratory factor analysis of responses to the 22 organisational culture items created (by clustering) four new interpretable values: *involvement*, *trustworthiness*, *formal recognition* and *independence*. The findings reflect common indigenous Malaysian values that emphasise extended families and collectives where everyone takes responsibility for fellow members of their group. Drawing on evidence from the survey, the paper concludes that the perceived cultural values of *involvement*, *formal recognition* and *trustworthiness* are the respondents' preferred values for achieving a higher level of knowledge sharing success. These findings are likely to help Malaysian knowledge based organisations as well as international investors gain a competitive advantage through knowledge sharing. Lessons and implications for HRM in Malaysian context are presented.

**Keywords:** HRM, knowledge sharing, culture, Malaysia

# **Intellectual Capital Reporting: An Innovative Model to Represent Company's Invisible Asset**

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**Abstract:** This work start with a brief review of some important European experience held on intellectual capital reporting. The focus of this working paper is to analyse some major project and try to build a new model that can help the stakeholder to know the potential advantage of a company. Usually the balances sheets show the results of some manager's decisions. In this context the report of intellectual capital offer a paint of next possible firm evolution. In a ICR we can find more information about a set of human skills, firm brand, firm behaviour and brand's trust, environment information, manager and property skills and goals. It has seen in this view, the report of intellectual capital is the list of a future potential firm, in other words, the report can show possible weaknesses that can conduct a firm in crisis status. From '90 years, university scholars, politics and financial world are focussing their works on intangible assets, this suggest an important change in economic landscape. The world in which firms operate today is very different from the past. Intangible assets have been always important to firm and is certainly clear shift towards an economy, based on knowledge. More authors argues about a change, in a firm investments; the tangible assets are being secondary to intangible assets. This is true if we analyse the companies assets investments during the last two decades, firms are changing their perspective, managers are understanding that only the knowledge can bring an advantage in this new market. Indeed, many companies are moving toward investment in research and development, sure that this elements represents the competitive advantage in this new economy. In this landscape, we start to talk about knowledge economy; managers, politics and university word have become more sensitive to this topic. The first example to show knowledge is due to Danish Ministry of Science and Technologies that published various guidelines, at least in 2003 on intellectual capital reporting. More other experiences have occurred during the years, lot's of them are related to a big company, where through the publish of an Intellectual Report find the methods to show outside their competitive advantage and potentiality of their organization.

**Keywords:** knowledge, intangibles, intellectual capital reporting, stakeholders



## **Distributed Leadership in Communities of Practice: The Case of United Nations**

**Nima Fallah**  
**Strasbourg University, France**

**Abstract:** Communities of Practice (CoPs) have become more popular during last two decades. Despite the fact of usefulness of CoPs for problem solving, collective learning, and knowledge sharing in teams, the literature is still uncertain concerning the manageability of CoPs (Swan *et al.* 2003) and there is not enough empirical research regarding the role of leaders in them. This research is focusing on a distinctive feature of communities of practice – the absence of a hierarchy among members. We investigate, empirically, the role of leaders in CoPs on the application of United Nations. We have selected a CoP within the United Nations Economic Commission for Africa as the case and we performed a number of interviews with both community' leaders and members. The result proposes an understandable role for leaders in CoPs. Afterwards, based on a systematic review of literature, and particularly the “distributed” form of leadership, which is more applicable on learning environments, we tried to elaborate our framework. From the distributed perspective of leadership, routines, as aspects of the situation, are the key constituting elements of the practice of leadership (Spillane and Diamond 2007); therefore, this article also discusses how routines operate as the direct links between key leadership activities and knowledge creation - learning, and how they enable leaders to influence CoP governance.

**Keywords:** communities of practice, distributed leadership, organizational learning

## **The Impact of HRM Practices on Organisational Capability Mediated by Knowledge Sharing: A Conceptual Model**

**Salman Iqbal<sup>1</sup>, Paul Toulson and David Tweed**  
**Massey University, Palmerston North, New Zealand**

**Abstract:** Recent concerns in organisations are about the improvement of scarce resources including individual employees' personal knowledge to improve organisational capability. Previous research shows that organisations facilitate individual employees to share, transfer and create new knowledge in different ways. The purpose of this paper is to propose a model which examines the relationships of human resource management (HRM) practices through knowledge sharing with organisational capability. The increasing interest around HRM is a reflection of a significant body of empirical research

examining the impact of different HRM practices on organisational capability. However, limited research has been conducted that can provide real insights for organisations wishing to gain a competitive advantage through people's personal knowledge. Previous research indicates that knowledge embedded in people can be utilised efficiently for organisational effectiveness, when knowledge sharing practices are applied to leverage their human resources to enhance organisational capability. The suggested conceptual model contributes to enriching the relevant literature. Our model suggests that HRM practices (including hiring practices, team assignments, collaboration and rewards systems) are positively mediated by knowledge sharing practices and trust, which affects employees' motivation and behaviour to improve organisational capability. The literature shows that organisations hire those candidates who are fit for the organisation (knowledge environment) to increase knowledge absorption capability. We argue that HRM practices through knowledge sharing, increases organisational knowledge storage by decreasing employees' turnover rate and increasing employees' loyalty. Further, the way organisations learn is a key to innovation and sustainable competitive advantage especially in knowledge intensive industries. However, organisational learning is a continuous process. We offer directions for future research to improve and extend future studies on HRM practices through knowledge sharing. This paper can help managers to better understand the importance of employee- employer relations to organisational capability. The integration of these practices leads to better and sustainable performance.

**Keywords:** knowledge sharing, HRM practices, trust, organisational learning capability

## **The Moderating Effect of Organisation Culture on Intellectual Capital and Organisation Effectiveness Relationship**

**Amrizah Kamaluddin and Rashidah Abdul Rahman**  
**Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia**

**Abstract:** Intellectual capital has been postulated as an essential element for firms survival and competitive advantages (Riahi-Belkaoui, 2003). Competitive success of businesses is depending more on strategic management of intellectual capital and less on the strategic allocation of physical and financial resources. Nevertheless, in a different economic set up where there exists different technological advancements (Chen et al., 2005) and differences in views on the metaphors of knowledge between the West and Asia (Andriessen and Boom, 2007), a different implication of intellectual capital may exist. Thus, the research contributes to the intellectual capital literature of the ASEAN countries where culture, politics, economics and

social environment provide different perspectives and challenges. Distinct from the existing intellectual capital studies, the current study highly considers the role of organisation culture in the intellectual capital – organisation effectiveness relationship. Malaysia with its multiracial, multi religious and multilingual integration provides a good culture model for the purpose of the study. The culture values of multiethnicity which build the Malaysian workforce, influence the managerial practices in Malaysia. A country's culture has a strong effect on the way people behave and thus is very significant in deciding and cultivating the culture of the organisation, its norms and practices (Abdullah, 1992). Based on the results through questionnaire survey, the study reveals that significant moderation effects between human capital with low consistency and mission culture which implies that in the event that coordination among the employees is low and the business direction or vision is not clear, the human resources are able to execute task without risking their firms performance. On the other hand, the significant interaction effects between relational capital with high consistency and mission culture on organisation effectiveness implied that knowledge which embedded in the relationships among employees, customers, suppliers, affiliations and others is vital to determine high performance when the shared beliefs or the ability to reach consensus among members and when clarity on the directions or organisation goals are high.

**Keywords:** intellectual capital, human capital, relational capital, structural capital, organisation culture, organisation effectiveness

## **Demystifying Organizational Learning: A Case Study of IBM's Corporate Volunteer Program**

**Ayse Kok**

**Educational Studies, Kellogg College, University of Oxford, UK**

**Abstract:** The purpose of this proposed research study is to empirically explore the nature of virtual communities of practice (CoP) in a global organisation within the context of its International Corporate Volunteer (ICV) Program. Following the logic of inductive research, a qualitative case study will be proposed here, to gain insight on the extent to which virtual CoPs can be utilized. For this purpose, a global business organisation that established a partnership with a Canadian non-profit organisation and implements a corporate volunteer program is proposed. Although previous studies confirmed the important role that the quality of dialogue plays in the cultivation of effective communities of practice this study shows that despite the quality of exchanges, virtual CoP might not be utilized due to some alternative channels of communication.

**Keywords:** organizational learning, communities of practice, social learning theories, corporate volunteer programs, IBM

# Tacit Knowledge in Nuclear Power Plants: Content, Characteristics and Sharing

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**Abstract:** As the amount of information based work is increasing, organizations become more dependent on knowledge. This makes knowledge management efforts more challenging in all industries, particularly in high reliability organizations (HROs), in which loss of important knowledge may lead to severe consequences. This study aimed at understanding and describing tacit knowledge in the nuclear power plant context. Therefore, the content and characteristics of tacit knowledge were investigated in three different nuclear power plant functions. In addition, the prerequisites for sharing tacit knowledge in nuclear power plant context were studied. The methodology of this study is qualitative. The research questions were approached empirically with theme interviews in a case study design. All together 39 theme interviews were conducted in three cases. The data was analyzed with qualitative content analysis. The findings suggest that tacit nuclear knowledge can be described with two dimensions: technical and contextual. The specific content of tacit nuclear knowledge varies between tasks. However, similarities in tacit knowledge across organizational functions can be found especially in the area of safety procedures. Results also indicated that there are three types of prerequisites for sharing tacit nuclear knowledge: situational, organizational and social. The organizational factors precede the situational and social factors: if an organization fails to provide resources and conditions for knowledge sharing the situational and social factors lose their relevance. This study proposed that the focus of tacit knowledge sharing in organizations should move towards preservation of tacit knowledge as a collaborative organizational challenge.

**Keywords:** tacit knowledge, knowledge sharing, high reliability organization, nuclear power plant, conceptual model

# **Cross-Border Cooperation Organisation's Role in Enhancement of Knowledge and Innovation in a Region**

**Katri-Liis Lepik**

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**Abstract:** Internationalization processes characterising the development of society today have led to a diversity of cooperation forms for countries and their regions. Coping with the new restructuring processes in economy and being competitive demands shift towards knowledge-economy. In that context develops the need to support learning processes and innovation; hence the creation of necessary networks and forms of activities for innovation creation in regions is important. Cross-border cooperation (CBC) has been identified as an important way for addressing the regional development problematics. Especially, the specific organisations created for the purpose of arrangement of cross-border cooperation require further attention. The topic is original as it studies the implementation of such important innovative cooperation forms as triple-helix cooperation and Living Labs type of cooperation in complex cross-border settings which experiences have so far been traditionally dealt with in the context of one country only. This article presents how the implementation of such complex forms can be enhanced between neighbouring countries. The aim of the article is to analyse how to facilitate the creation of cross-border cooperation forms with more specific focus like cross-border-triple-helix cooperation and a cross-border-Living Lab type of cooperation using the premises availed by a CBC organisation. The empirical part of the paper consists of action research carried out by the author in a CBC organisation Helsinki-Tallinn Euregio. The paper concludes by presenting models where a CBC organisation is a facilitator and an appropriate framework for fostering innovative and complex CBC forms and tools.

**Keywords:** cross-border cooperation organisation, knowledge, innovation, collaborative learning, triple-helix cooperation, living lab

# Phenomena Driving Knowledge Management Practice

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**Abstract:** Literature and experience suggests practitioners are faced with numerous challenges when planning knowledge management projects. There are a daunting number of theories and concepts to choose from, little clear and consistent guidance, many solutions claim to be KM, requirements are often vague, and contexts are complex and unique. This poses an interesting research question as to what guides practitioners in the absence of a consistent, coherent and universally agreed KM model or theory. Influencing theory, influencing context and choices made on knowledge management projects in four large South African organisations were investigated to answer this question. Project solutions were mapped against models of the diversity, or variety, of KM concepts and perspectives; revealing that the wealth of theoretical options is largely ignored and only a narrow set of theory is relied upon. The projects' context was then analysed to identify specific factors that should have affected the choices made; finding projects did not respond significantly to their complex, unique and imposing context. Influences of project choice were then investigated using a Grounded Theory Method that was applied to project documentation, correspondence and participants' recollections. Twenty phenomena were found to have influenced practice. These were grouped and modelled into the five categories of foundations, rigour, commerce, searching for success, and the big picture. Few of these phenomena appear in academic KM literature and many limit adoption or consideration of diverse theory. Findings were surprising and contradict many of the assumptions that literature appears to be making about how knowledge management is implemented. Practice makes poor use of the wide range of theory, diffusion of knowledge between practice and research is low, context has far less influence than expected, arguably mundane factors have more influence than theory, and some blame for this situation can be ascribed to a lack of clear theoretical guidance.

**Keywords:** knowledge management, diversity of theory, project choices, South Africa

# From intangibles Identification to Requirements for Intangibles Management

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**Abstract:** In order to maintain their leadership, corporate companies have to continuously find new ways to efficiently respond to the ever-changing customer needs. To do so, companies must rely on both business strategies and rules, as well as the unique capital provided by human knowledge developed during years of experience. It became evident for organisations that knowledge is a fundamental economical asset (Strassmann, 1998). Our work is focused on finding methods to foster this knowledge, referred to as *intangibles*, in the context of a company that adopted product-line engineering to provide railway transport solutions. The core element of product-line engineering is the use of a unique “reference platform” which may be adapted in order to create a set of distinct products. When responding to a customer’s demand, the reference platform has to be properly adapted in order to map the specific needs of a customer. Our goal is to find a solution for managing intangibles involved in *the process of adapting the “reference platform”*. We have therefore studied the adaptation process in order to understand how intangibles impact this process and how they can be managed. The study was divided in two stages. The first stage had the goal to identify intangibles through interviews. The second stage consisted in the choice and analysis of a specific activity where to apply management of the intangibles previously selected. Results of our investigation showed there was a need for a workspace supporting intangibles management and organisational learning. Therefore, based on the set of needs identified during our study, we defined a set of basic requirements for the future workspace. In this paper we present all the steps of our research from the intangibles identification until the requirements definition for the workspace.

**Keywords:** intangibles, tacit knowledge, knowledge management, organizational learning, reference platform

# Intellectual Capital Efficiency in Malaysian Public Companies: A Longitudinal Study

**Azlina Rahim, Ruhaya Atan and Amrizah Kamaluddin**  
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**Abstract:** Intellectual capital (IC) has captured the attention of researchers in the knowledge-based economy. IC which consists of a set of intangibles drives the organizational performance and value creation. In this new era, IC becomes the key resource of value creation and has been recognized as an important corporate edge towards extraordinary company performance. The purpose of this study is to empirically examine the value creation capability of Malaysian Public Companies. The intellectual capital efficiency will be used as a proxy of value creation efficiency. Value Added Intellectual Coefficient called VAIC<sup>TM</sup> developed by Ante Pulic will be used to measure the intellectual capital efficiency and its components namely human capital efficiency, capital employed efficiency and structural capital efficiency. The study will examine annual reports of Malaysian Public Companies over a ten year period from 2000 to 2009 using a content analysis instrument. The ten year period is motivated by the gap among prior studies in respect of longitudinal sample, assuming that companies had changed over a decade in response to value creation efficiency. The study will also investigate empirically the relation between the intellectual capital efficiency and market value of Malaysian Public Companies. Due to the mix results in previous studies, it encourages the researchers to conduct such study and conclude these relationships. Based on the survey of literature, there is a great gap found in the market to book value of Western countries, however there is no specific study that focuses on Malaysian market especially in longitudinal manner. Therefore, the results will extend the understanding of the role of intellectual capital efficiency in enhancing the market value of companies in the developing countries. Finally, the findings from this study may serve as a useful input for companies, investors and regulators used for benchmarking, strategies development process and policy making purposes.

**Keywords:** Intellectual capital efficiency, value creation, market value, Malaysia, VAIC<sup>TM</sup>



# The Meaning of Social Interaction within Open Innovation Projects in Academic Context

Kati Vehmas

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**Abstract:** Although university-company collaboration projects have increased considerably in the last years, the significance behind concrete outcomes is still unrecognized especially in the area of humanities, for example design. These collaboration projects combine research, technology and innovation and are a mode of open innovation. This paper considers the university-company collaboration projects in the open innovation context. This study is constructed from the point of view of the collaborating companies; it is empirical and qualitative. The study examines the practices of participation analyzing how the effectiveness of the projects is perceived in the collaboration design research projects. The study is based on semi-structured interviews with eight informants. The informants are experts of research and design activities as well as open innovation projects. The hypothesis is that in the context of research and design and particularly academic design research, effectiveness lays outside the ordinary evaluation indicators. Therefore the university-company –collaboration may appear modest and ineffective. The study focuses on the company perspective using qualitative empirical material. As the university-company –collaboration projects are a significant platform for open innovation and multidisciplinary research at present, the outcomes of this study may be useful for universities, financiers and companies alike. The outcomes construct new knowledge about the particular effectiveness of the academic research & design projects. From the perspective of constructivist epistemology, knowledge is constructed through social interaction and the findings represent an interpretation of the researcher. The study applies a process of data-driven content analysis, which includes a stage of open coding, two levels of axial coding and after these conceptualizing. The findings indicate that contrary to the general assumptions companies do not consider concrete results as the most important outcomes of the university collaboration projects. Instead the foundation of the effective collaboration lies on multidisciplinary nature of the projects, uncertainty of action and dynamic participation in the process. Social interaction can be seen as a form of effectiveness, which is not recognized and defined yet in the open innovation project context. This paper concentrates on the meaning of social interaction in the open innovation projects. The study suggests that although constructed knowledge is conceived as a result of the projects, learning and developing knowing in practice are important aspects in the effectiveness of collaboration as well. In

addition, the classical organization of a project is too formal for open innovation projects. Instead it seems that the form of a temporary organization is more natural in this context and enables participation and social interaction. University-company -collaboration in the field of design research illustrates particular effectiveness, which grows from the social interaction in the crossroads of different cultures of action. The study points out, that companies see effectiveness strongly associated with active participation, which the form of a temporary organization facilitates naturally.

**Keywords:** open innovation, university-company –collaboration, practice-based knowing

## **An Empirical Study of the Impact of Intellectual Capital Performance on Business Performance**

**Ka Yin Yu, Hing Tai Ng, Wai Kwan Wong, Kai Wah Samuel Chu and Kin Hang Chan**  
**The University of Hong Kong, China**

**Abstract:** This study attempts to shed light on intellectual capital (IC) performance of Hong Kong companies and its possible associations with business performance. Audited accounting data were collected from the constituent companies of Hang Seng Index in Hong Kong Stock Exchange between 2005 – 2008. In order to compute a set of IC efficiency indexes based on VAIC™. Value Added Intellectual Coefficient (VAIC™) is a quantitative IC measurement method which was pioneered by Pulic (2000) of the Austrian IC Research Centre. Four accounting ratios: market-to-book value (MB), return on assets (ROA), asset turnover (ATO) and return on equity (ROE) were used as proxies for measuring business performance. VAIC™ and its associated indexes, and the accounting ratios of sample companies are submitted to regression analysis for the detection of their associations. No conclusive evidence was found to support the associations between VAIC™ and the four financial indicators. However, components of VAIC™ were found to be able to predict a substantial variance in business performance. For example, Capital Employed Efficiency (CEE) has been found to be the key factor in predicting business financial performance. In addition, Structural Capital Efficiency (SCE) has an effect on market valuation as measured by MB as well as profitability as measured by ROE. Interestingly, negative correlations were observed between Human Capital Efficiency (HCE) and the financial indicators which, perhaps, were due to the existence of a gap between the traditional accounting perspective and value creation perspective which is central to the VAIC™ methodology in measuring IC. It is believed that the empirical results of this research have

provided some new insights to the stakeholders of Hong Kong companies in utilizing IC, particularly the noted impact of structural capital. While physical and financial assets, still, appears to be taking on an important role as the key resources in delivering business success, IC, or to be exact, structural capital may be silently making headway into the fabric of Hong Kong's economy as illustrated by its impact in delivering return on equity (ROE).

**Keywords:** intellectual capital, VAIC™, financial performance, value creation, Hang Seng Index, Hong Kong



# **Work in Progress**



# Consulting Engineering Firms as Learning Organization

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**Nice Sophia Antipolis University, (coprogram with Industrial Management Institute of Iran)**

**Abstract:** This article looks into putting the pattern of Learning Organization (LO) into practice in Consulting Engineering (CE) firms, centered on construction consulting engineering firms. The method used is literature review with a perspective of practicing the subject in some case-studies in the future for measuring the outcomes. Since consulting engineering firms are knowledge-based organizations, practicing knowledge management comes as a key step for being transferred into LO. In this regard two subjects are to be paid attention too. First, consulting firms are project-based firms; so saving and sharing the acquired knowledge as organizational knowledge in each project is important. Second, acquired knowledge in construction projects is mostly tacit knowledge and for knowledge management this comes as a challenging factor. This challenge gets more serious since this tacit knowledge is gained in construction workshops by low-educated personnel. Transforming this knowledge to members of the CE who are high-educated personnel in such condition is tricky. Furthermore, the most optimum condition is when acquiring knowledge in consulting firms is done through a double-loop process instead of single-loop process, which means taking care of the issues \_ predicted and dealt with\_ before facing them. For implementing an acceptable LO system, CEs must work on their IT infrastructure, particularly in the case that there are several branches of a firm globally distributed. Basically, CEs must change their project-based orientation into long-term orientation and look into each project as a learning program.

**Keywords:** learning organization, consulting engineering firms, knowledge management

# Round Table





## The Future of IC and how Will we get There?

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**Abstract:** The field of IC is growing organically around the world in different geographies and within different academic and business disciplines. But there is no international consensus on where the field should be going.

This workshop proposes to lead the participants through a discussion of:

- Where the field stands today
- The chronology that got us to this point
- Possible futures—identified as utopia and dystopia
- The pathway to our desired future

The goal of the session is to create a consensus about future efforts that individual and institutional community members can undertake to contribute to our collective progress.

**Keywords:** Intellectual capital, future, community

Dr. John Dumay from University of Sydney has offered to facilitate the session using the open source Future Back methodology described here:

<http://www.cognitive-edge.com/methodprint.php?mid=10>



# **Presentation Only**



# Enhancing Stakeholders Involvement in Knowledge Translation Activities in the OHS Research Environment

Louis Lazure, Charles Gagné and Denis Denys,  
RSST, Canada

**Abstract:** Knowledge translation (KT) is an increasingly widespread practice in the research community. It is a process that, as a research and granting organization, the Institut de recherche Robert-Sauvé en santé et en sécurité au travail (IRSST) uses to promote the appropriation of research results in the workplaces. Although the definition of KT does not make consensus, the IRSST gives it a comprehensive definition that includes both concepts of sharing and exchange of knowledge. The simple dissemination of research results is insufficient for changing how things are done in the workplace and for having a real impact on workers' health and safety.

An overview of the scientific literature reveals, among other things, that the following conditions must exist in order to achieve an efficient knowledge translation: the importance of establishing personal contacts between researchers and stakeholders/end-users, the continuous involvement of the stakeholders throughout the research process, the existence of a link between the moment of availability of the research results and their use; the applicability of the results to facilitate the actual appropriation by workplaces; the collaboration of the stakeholders/end-users to adapt and implement the research results.

The objective of this paper is to present the Research and Knowledge Translation Cycle developed by the IRSST and to focus on the conditions to enhance stakeholders' participation in KT activities in the Occupational Health and Safety (OHS) research environment. The IRSST's Research and Knowledge Translation Cycle is structured around the development and the maintenance of networks that represent all the actors (researchers, employers and workers' associations and prevention associations). The framework of practice was developed following a rigorous process led by knowledge transfer researchers and knowledge transfer advisors based on a extensive scientific literature review and a structured analysis of past knowledge transfer activities accomplished in the past 15 years.

In accordance with its commitment to maintain close ties with the work community, IRSST's priority is to establish solid relationships with decisions makers (including government bodies and Workers' Compensation Boards) and stakeholders/end-users in workplaces. The continuous interaction between these three actors can - by knowledge creation and adaptation to

specific context - influence the decision-making process that leads to the development of OHS standards and regulations. The dynamics of this approach respects the principle of union-management cooperation that characterizes Occupational Health and Safety activities in the province of Quebec. The continuous involvement of the stakeholders in all the research phases reinforces the idea that knowledge translation cannot be limited to the simple dissemination of results, once the research project is completed. For the IRSST, research becomes particularly relevant when workplaces appropriate results. Hence, it became unmistakably evident that the active participation and involvement of stakeholders throughout the research process was mandatory to create an environment conducive to the exchange, dissemination, appropriation and use of results that answer the real needs of workplaces. Therefore, to ensure that the stakeholders/end-users (workers' and employers' associations, joint sector-based associations) appropriate the research results and subsequently implement them in their workplaces, stakeholders must be carefully selected for each research project. Further, the role of the stakeholders is instrumental in promoting the uptake of research findings and point out potential obstacles to change in practices. The selection of relevant stakeholders must be established on a variety of criteria such as, diversity of perspective and point of views, representativity of work sector, role of influence and access to decision-makers, financial contribution, degree of use of results and relationship between stakeholders. As part of the selection process, consideration must also be given to determine the stakeholder's role, the motivation to participate in KT activities and the capacity of maintaining solid, frequent and ongoing interactions.

The selection criteria of the stakeholders as well as a better definition of their role have proven to be critical factors in their involvement and have led to a substantial increase in the diversity of potential participants.

Established in Quebec (Canada) since 1980, the IRSST is a non-profit scientific research organization who contributes, through research, to the prevention of industrial accidents and occupational diseases, and to the rehabilitation of affected workers.

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**AdditionalInfo:** Despite the fact that the framework of practice was developed based on theoretical models we decided to present it in the non academic session because the focus is directed on the practical examples.

**Keywords:** knowledge translation, stakeholders, knowledge to action, framework of practice, knowledge transfer



# Poster



# **Management of Legal Information in an International Context: A Conundrum of Challenges and Opportunities**

**Joan Howland<sup>1</sup> and Chang Wang<sup>2</sup>**

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**Keywords:** legal information; legal information system; legal research; legal publishing; comparative

## **Abstract**

Ever since the scribes of Mesopotamia compiled the Laws of Ur-Nammu (c.2100 B.C.), Lipit-Ishtar (c. 1930 B.C.), Echnunna (c.1770 B.C.) (Versteeg, 2000: 18), and Hammurabi (c. 1770 B.C.), civilizations have attempted “to impose a semblance of order on the discipline that today we call ‘law’” (Versteeg, 2000: xiii). Although underlying motivations may have differed, throughout history civilizations have attempted to develop systems that make the law understandable, accessible, credible, and authoritative. However, even in the technological age, it is not clear that legal knowledge management is progressing forward. One could argue that without “systematic reorganization to make [legal information] more knowledge and user-friendly” (Montaña, 2000: 57) the systems currently operating may become as chaotic as those in place when the ancient scribes began laboring over their stone tablets.

## **Knowledge Management in the Legal Information Context**

Among the myriad of definitions of knowledge management found in scholarship, the one best suited for a discussion about legal information is the deceptively simple one proffered by Mohsen Gerami (2010: 234), “Knowledge management is the process of making relevant information available quickly and easily for people to use productively.” The key concept in Gerami’s definition is that information must be made accessible in formats that scholars, researchers, and others can use “productively.” Law poses unique challenges in regard to knowledge management. It is voluminous, complex, (Schweighofer, 2004: 48) and non-static, with a maddening lack of consistency across jurisdictional lines in terms of format, terminology, and organization. The differences between common law and civil law countries complicate matters further. In addition, “In the age of knowledge management, law stands out as an anachronism. On one hand, law is entirely man-made. There are no hidden physical principles or great unknowns, and no lost body of law....law – its principles, outcomes, and the

entire body of its text – is completely knowable...A person researching some question of law ought to be able to quickly and easily derive an answer with certainty... In reality, nothing is further from the truth. You can research a question of theoretical astrophysics far more easily, and derive an answer far more certain, than a moderately complex question involving .... [a] tax code” (Montaña, 2000:54). Unlike science or mathematics, there are no absolutes in law. Even concepts such as fairness, justice, precedent, and rationality are open to discussion, debate, and constant reassessment.

### **The Development of Legal Information Systems in the United States**

The American legal system follows the common law tradition which originated in medieval England. Derived from customs, principles, and rules, the common law was an oral tradition that passed generation to generation, and was eventually reflected in written court decisions. The American legal system differs significantly from that of jurisdictions, such as those found in continental Europe, that follow the civil law tradition which is based on Roman law. Civil jurisdictions place a greater emphasis on written legal codes and “there is a presumption that code provisions apply to every legal problem” (Montaña, 2000:54). In common law jurisdictions, no such presumption exists and “many legal principles are discoverable only through the ‘unwritten’ or common law” (Montaña, 2000:54). Therefore, in the United States there is considerable reliance on written court decisions which may set a precedent to be followed by judges adjudicating later cases. In addition, “the American legal system has no presumptions that a statute will apply to every legal problem or that codes are comprehensive statements of the law” (Jacobstein, Mersky and Dunn, 1998: 8).

American legal research methodologies were sent topsy-turvy into cyberspace in the 1970s with the advent of the first viable electronic legal information system Lexis, which incorporated much of the carefully-edited case material compiled by West Publishing. This revolution in legal research transformed the traditional laborious methodology of investing hours plowing through mammoth digests, indices, and citators into a world where the click of computer key could instantaneously retrieve statutes, cases, and secondary sources on any legal issue. West Publishing followed quickly with an electronic database, Westlaw, in 1975. The true value of both Lexis and Westlaw is not so much in their efficiency and comprehensive coverage, but in the fact that the information contained is reliable, verifiable, and timely.

### **The Development of Legal Information Systems in China**

Chinese legal publishing has historically been strictly regulated. Before 1979, legal bibliographic systems and legal research methodologies were primitive. “Standardized and advanced techniques for organizing legal information,

such as codification, indexing, cataloging, and superseding, [were not] implemented by legal publishers” until the early 1990s (Liu and Luo, 2003). In addition to traditional hostility towards transparency of information, the lack of a technical infrastructure was responsible for the underdevelopment of modern legal information systems. China had “neither a central government clearing house For disseminating government information nor a depository library system to . house the government publications and provide public access to them” (Liu and Luo, 2003). The 1990s witnessed China’s unparalleled economic growth characterized by foreign investment, privatization of commercial and industrial entities, and technological advances. The mantra “Knowledge is Power” (in Bartlett, 1980: 179) became a motivating force. The collection, management, and distribution of knowledge came to be viewed as socially and economically advantageous. Legal information in particular was seen as having high potential market value. Recently, international information providers have developed competing Chinese legal information services. For example, Thomson Reuters developed Westlaw China, an online database to manage and enhance access to primary sources. With their sophisticated editing techniques, advanced search engines, and value-added business models, these external providers remain a significant reference framework for domestic providers.

### **“Where is the Knowledge We Have Lost In Information?” (Eliot, 1934:7)**

Chinese and American legal professionals now have a world of information at their fingertips. However, legal researchers need to have tools that help them sort and identify relevant information. Effective knowledge management involves finding accurate and relevant information, and having confidence that the legal research strategies employed have been comprehensive. Free and open access to legal information on the Internet has created an opportunity and a dilemma for legal researchers: a channel to connect to legal “knowledge” and a vast labyrinth of information difficult to navigate, decipher, and translate. Can the different paradigms in information systems and legal research disciplines be reconciled, particularly when East meets West? The answer will depend on international efforts to exchange information, to share knowledge, to value the same fundamental rights, and to communicate in a neutral language – the language of the law.

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