

**Abstracts of the Papers  
Presented at the  
8th European Conference  
on Intellectual Capital**

**ECIC 2016**

**Hosted by  
Ca' Foscari University of Venice  
Italy**

**12 - 13 May 2016**

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# Contents

Paper Title	Author(s)	Guide page	Page no
<b>Preface</b>		iv	vii
<b>Committee</b>		v	viii
<b>Biographies</b>		vii	xii
<b>Keynote Presentation Outlines</b>		1	
A structured Literature Review of the Intellectual Capital Research: The Past, Present and Future	James Guthrie	3	
Involuntary disclosure of Intellectual Capital: Is it relevant?	John Dumay	4	
<b>Research Papers</b>		5	
Exploring the Framework of a Knowledge-Based Economy at National Level: A Systematic Literature Review	Sara Abdullah Al-Maadeed and Vishanth Weerakkody	7	1
Figures and Images for Codification Intangibles: New Look at Business Knowledge Mapping	Artem Alsufyev and Tatiana Gavrilova	7	10
Intellectual Capital Elements Interaction and Company Financial Performance: Evidence from Russia	Tatiana Andreeva and Tatiana Garanina	8	19
Sharing Knowledge in Public Service Networks: a Case Study of Employment Services	Ettore Bolisani and Enrico Scarso	9	28
Conflictology Culture - a Structural Element of Intellectual Capital Formation	Airita Brenča and Rasma Garleja	10	38
How IC Enhances Product/Service Innovation in High-Tech Versus Low-Tech Firms	Marta Buenechea, Aino Kianto, Josune Sáenz	11	45

The Rise and Fall of IC Reporting in Italy: Evidence From the Field	Maria Serena Chiucchi, Marco Giuliani and Stefano Marasca	12	54
Intellectual Capital Disclosure and Awareness in Academic Spin-offs	Renata P. Dameri and Roberto Garelli	13	61
The Sustainability of Internal Talent Pool through the use of Business Intelligence	Ivo Dias, Maria José Sousa and Carla Caracol	13	70
A Comparative Study and Analysis Between the (Positive Traits and Personal Strengths) PP Model and Current Security Compliance Models	Jamal El-Den and Kumar Dangi	14	79
Social Networks and Intellectual Capital: new Forms for Knowledge Sharing.	Ginevra Gravili	15	87
Work Motivation of Tourism and Hospitality Students: Implications for Human Resource Management	Aleksandra Grobelna and Barbara Marciszewska	16	95
What Comes First? A Model of Intellectual and Novel Business Model Interaction	Harold Harlow	17	104
Intellectual Capital Optimisation in Microeconomic Sphere	Simona Hašková, Eduard Babulak and Marek Vochozka	18	112
Trust Restoration in Workplace Relationships: Multi-level Analysis of (Mis)Trusting	Mirjami Ikonen, Taina Savolainen, Palmira Lopez-Fresno and Holger Kohl	19	119
Identifying Human needs in Organizations to Develop Sustainable Intellectual Capital – Reflections on Best Practices	Alexander Kaiser, Florian Kragulj and Thomas Grisold	20	129
Defining an Intellectual Capital Based Measurement Framework for Dynamic Distributed Software Development	Pekka Kamaja, Mikko Ruohonen, Timo Ingalsuo and Katriina Löytty	21	137

Human Capital of the 21st Century in Coworking Centers	Jaroslava Kubátová	22	145
An Intellectual Capital Perspective for Good Governance of the Public Sector	Tatiana Laskari, Petros Kostagiolas and Vasileios Kefis	24	152
Knowledge “Utilisateur” and Knowledge “Usager”: The Need for an Evolving Assistance	Benoit Le Blanc and Marc Kaltenbach	25	159
When Intellectual Capital Meets Personal Data: A Solution for “Intellectual Privacy”	Gianclaudio Malgier	25	164
Intellectual Capital Model for Mexican Public Universities	Patricia Mercado-Salgado, Daniel Arturo Cernas-Ortiz and Pedro Gil-Monte	26	172
Intellectual Capital and Firm Performance: Static or Dynamic Estimation: Evidence From UK	Muhammad Nadeem, Christopher Gan and Cuong Nguyen	27	178
How Much Organizational Slack and Attention Affect Firm's Performance?	Beatrice Orlando, Antonio Renzi and Giuseppe Sancetta	28	186
New Item: Potential of Knowledge Generation	Evgeny Popov and Maxim Vlasov	29	194
Four-Component Model of Intellectual Capital and Its Impact on Process and Product Innovations	Jasna Prester, Najla Podrug and Maja Daraboš	29	206
Elements of Individual Knowledge: A Practitioner’s Perspective	Mohamed AF Ragab and Amr Arisha	30	215
Social Network Based Leadership Decision Making Supported by Social Capital, Knowledge Management and Emotional Intelligence	Anjum Razzaque	31	224
Building Professional Capital Through the Development of Teaching Partnerships	Karen Roland, Sharon Johnson, Lori Jones and Cathy Boyer	31	231

Inventive Intellectual Corpus Analysis Applied to Incremental Technological Innovation	Pierre Saulais and Christophe Lecante	32	240
Corporate Eco-innovative Entrepreneurship for the Application of Human Capital at Regional Level	Sabina Scarpellini, Raquel Ortega-Lapedra, Alfonso Aranda-Usón and Miguel Marco-Fondevila	33	253
Using Financial and Entrepreneurial Literacy of a Region's Young Population	Klaus Bruno Schebesch, Loredana Pribac and Radu Blaga	34	262
A Holistic System for Measuring the Performance of Teachers and Students	Gulbakhyt Sultanova and Vilmur Auken	35	271
Theories and Components of Knowledge Competence	Gulzhanat Tayauova and Diana Amirbekova	35	280
IP Strategies in Academic and Corporate Spin-Offs: a Theoretical Framework	Antonio Toma, Giustina Secundo and Giuseppina Passiante	36	285
Knowledge Management in New Product Development: Leading Innovation Teams	Mariza Tsakalerou	37	294
The Impact of the IoT and IoE Technologies on Changes of Knowledge Management Strategy	Gulfarida Tulemissova	38	300
Intellectual Capital Efficiency Ratio (ICER) and Company Performance: Evidence from Polish Listed Companies	Grzegorz Urbanek	38	309
The Pros and Cons of Benchmarking in the National Intellectual Capital Measurement: A Strategic Management Approach	Lina Užienė and Virginija Januškaitė	39	317
Intangibles in the Internationalization of Family Firms: A Source of Competitive Advantage?	Manuel Carlos Vallejo-Martos, Guadalupe Fuentes-Lombardo and Miriam Cano-Rubio	40	327

The Relationships Between Organizational Vision, Intellectual Capital Value and Motivating Managers	Aleksandra Zalesna	41	339
<b>PhD Research Papers</b>		43	347
An Input Output Based Methodology to Find the Future Job Trends in Europe	Fizar Ahmed	45	349
Are the Talented ones Committed Enough to be Retained?	Carla Caracol, Patrícia Jardim da Palma, Maria José Sousa	45	358
Transcending Beyond the Organizational Context: Validation of the Individual Market Orientation Construct	Muhammad Iskandar Hamzah, Abdul Kadir Othman and Faridah Hassan	46	367
The Business Performance in the Context with Corporate Culture	Petra Haršányová, Justína Mikulášková and Miloš Čambál	48	375
Developing a Measure of Intellectual Capital fit: an Approach to Improve Business Processes	Arru Matteo	49	382
Internet Marketing as a Tool of Desirable Corporate Culture	Justína Mikulášková, Petra Haršányová and Miloš Čambál	49	393
The Influence of Organisational Climate in Stimulating Innovative Behaviour Among Human Capital in Malaysian Academic Libraries	Haziah Sa'ari, Marlia Idrus and Faridah Jaafar	50	400
<b>Masters Research Papers</b>		53	407
Empirical Study of Intellectual Capital Influence on the Value of Kazakhstan Organizations	Kamshat Dosmanbetova, Aliya Dosmanbetova and Manshuk Dosmanbetova	55	409
Intellectual Capital Risk Assessment: A Perspective from Credit Risk Analysts	Haley Wing Chi Tsang and Rongbin Lee	55	418

A Contingency Approach to Investing in Knowledge and Information Management	Hamid Yazdaninejad, Mina Majdizadeh and Jalal Haghghat Monfared	56	426
<b>Work In Progress Paper</b>		59	437
Impact of Human Capital and Spatial Concentration on Enterprise Productivity in Russia	Natalia Davidson and Oleg Mariev	61	439
<b>Abstracts Only</b>		63	
Clearing House for Knowledge Options - Creating a Marketplace for Knowledge	Philippe Leliaert	65	
CEO Appointment in Crisis: Does a Stock Market Recognize Personal Human Capital?	Ilulia Naidenova and Marina Zavertiaeva	66	
In Search of an Intellectual Capital Comprehensive Theory: An updated approach	Jose Maria Viedma Marti	67	
<b>Paper Citations</b>		69	
Google Scholar	The Importance of Paper citations and Google Scholar	71	
Jotter Page	Blank Paper for notes		

## Preface

These proceedings represent the work of presenters at the 8th European Conference on Intellectual Capital (ECIC 2016).

This year the conference is being hosted by Ca' Foscari University of Venice, Italy on the 12-13 May 2016. The Conference Co-Chairs are Professor Carlo Bagnoli and Professor Chiara Mio from Ca' Foscari University of Venice and the Programme Co-Chairs are Prof Andrea Garlatti and Dr Maurizio Massaro from Udine University, Italy.

The opening keynote address is by James Guthrie from the University of Sydney, Australia on *A structured literature review of the intellectual capital research literature*. The 2<sup>nd</sup> day Keynote is being presented by John Dumay from Macquarie University, Sydney, Australia on the topic of *"Involuntary disclosure of Intellectual Capital: Is it relevant?"*

The primary aim of this conference is to contribute to the further advancement of intellectual capital theory and practice. The conference provides a platform for presenting findings and ideas for the intellectual capital community and associated fields. The range of people, issues and the mix of approaches followed will ensure an interesting two days.

143 abstracts were received for this conference. After the double blind, peer review process there are 41 Academic Research Papers, 7 PhD Papers and 3 Masters Research Papers and 1 Work in Progress Paper published in these Conference Proceedings. These papers represent truly global research from some 31 different countries, including Australia, Austria, Bahrain, Belgium, Canada, China, Croatia, Czech Republic, Finland, France, Greece, Hong Kong, Hungary, Iran, Ireland, Italy, Kazakhstan, Latvia, Lithuania, Malaysia, México, New Zealand, Poland, Portugal, Romania, Russia, Slovakia, Spain, UK, Uruguay, and USA.

We hope that you have an enjoyable conference.

Carlo Bagnoli, Chiara Mio,  
Andrea Garlatti and Maurizio Massaro  
May 2016

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# Biographies

## Conference Co Chairs



**Prof Carlo Bagnoli** PhD is Associate Professor of Strategy Innovation at Ca' Foscari University Venice. He is Editors in chief of Journal of Strategic and International Studies and member of the editorial board of Journal of Management & Governance. Carlo has wide research and teaching experience in the fields of strategy and business model innovation, knowledge management and entrepreneurship.



**Prof Chiar Mio** is Full Professor of Strategy Planning and Sustainability Management at Ca' Foscari University Venice. She is member of the editorial board of corporate social responsibility and environmental management and Chair of the board of Banca Popolare FriulAdria, (Cariparma Credit agricole Group). Chiara has wide research and teaching experience in the fields of integrated reporting, corporate social responsibility, and performance measurement.

## Programme Co-Chairs



**Prof Andrea Garlatti**, PhD, is Full Professor of Public Management at Udine University. He is also Director of Udine University Interdepartmental Center for Research on Welfare and Coordinator of the Accounting and Management Control section within the Department of Economics and Statistics. Andrea has wide research and teaching experience in the fields of public management and welfare.



**Dr Maurizio Massaro** is aggregate professor at Udine University since 2008, having worked as teacher at Udine University since 2001. He was visiting scholar at the FGCU, Florida, USA, in 2010 and Leicester, UK, 2013. His academic interests are primarily in the field of business performance measurement, intellectual capital, knowledge management and entrepreneurship.

## Keynote Speakers



**James Guthrie** held positions at various Australian and Italian universities before retiring in 2009. He is currently Honorary Professor at the University of Sydney, and has fractional Professorships at Bologna and Macquarie University. James' foundational work for the OECD on KM and IC resulted in several prominent research projects and publications. James has published 175 academic articles, 10 books and 45 chapters, and has presented to over 350 national and international gatherings. James is the joint founding editor of the Accounting, Auditing and Accountability Journal, sits on 20 editorial boards, and the Journal of Intellectual Capital's founding Australasian Editor (2000 – 2014).



**Dr John Dumay** is Associate Professor in Accounting at Macquarie University, Sydney. Originally a consultant he joined academia after completing his award winning PhD in 2008. John's research specialties are intellectual capital, knowledge management, non-financial reporting, management control, research methodologies and academic writing. John has published over 30 peer reviewed articles in leading academic journals. He is also on the Editorial Board of Advice for the Electronic Journal of Knowledge Management; Meditari Accountancy Research; Accounting, Auditing and Accountability Journal, and is the Australasian Editor of the Journal of Intellectual Capital.

## Mini-Track Chairs



**Dr Pekka Kamaja** has worked since 2011 at the Information Science department in Haaga-Helia University of Applied Sciences in Helsinki, Finland. Previously to that, Mr Kamaja has been active in IT, information management and business management consultancy businesses. He holds both MSc degree in automation engineering science and PhD in industrial management.



**Professor W.B. Lee** is the Chair Professor of the Department of Industrial and Systems Engineering and Director of the Knowledge Management and Innovation Research Centre at the Hong Kong Polytechnic University. He has pioneered research and practice of intellectual capital and knowledge management and technologies in various sectors in Hong Kong including manufacturing, trading and public utilities, and has conducted projects in unstructured information management and organizational learning and innovation.

He is the co-chief editor of the Journal of Information and Knowledge Management Systems (Emerald) and the chief editor of the International Journal of Knowledge and Systems Science (IGI Publishing).



**Dr Gregorio Martín-de Castro** is an associate professor of business administration at Complutense University of Madrid, Spain, and co-founder and member of the executive board of the Nonaka Centre for Knowledge and Innovation, CUNEF Business School, Spain. He holds a Ph.D. in Strategic Management from Complutense University of Madrid and a Postgraduate Diploma in Knowledge Management and Intellectual Capital from INSEAD (France) and I.U.E.E. (Spain). His research topics include strategic management, intellectual capital, knowledge management, corporate reputation, and innovation management.



**Mikko J. Ruohonen** is professor of information systems at the University of Tampere, Finland, and has worked in the field of information strategy and organization development since 1984. His teaching and research interests are on information strategies, use of ICT in business, e-business, e-learning, knowledge management, inter-organizational learning and mass customization. He has more than 130 research publications on business, ICT and organisations. He has served many years as a special consultant for IFIP TC3 Education, which granted him the Silver Core Award in 2007. Currently he is working in the program for dynamic distributed software development for global business environment ([www.ddscale.fi](http://www.ddscale.fi)).

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**Fizar Ahmed**, MS in CSE is perusing PhD in forecasting labour market at the Corvinus University of Budapest. He has more than 12 years experience in education services and research. He has completed several projects in big data analysis. His research interest covers the area of data analysis and forecasting specially in big data.

**Sara Abdulla Al-Maadeed** is a lecturer in Qatar University, who is joining Brunel University of London as a Phd Candidate in the search area of Knowledge-based Economy and Knowledge Management. Sara has filled number of senior positions in Qatar Energy Sector as a Senior Strategic Planner in the field of performance and knowledge management.

**Matteo Arru** is Ph.D. Student in Business Informatics at the Corvinus University of Budapest. He holds an MBA, a Master of Computer Engineering and he is a certified six sigma black belt. He is Lecturer at University College of Dublin. Previously was KM Officer at the European Institute of Innovation and Technology.

**Ettore Bolisani** is Associate Professor at the University of Padua. He was Research Associate at Manchester University, visiting scholar at Coventry University, visiting lecturer at Kaunas Technological University. He authored papers on communities of practice, knowledge protection, KIBS, knowledge measurement. He was Chair of ECKM 2009. He is president of the International Association for Knowledge Management, and co-editor (with Meliha Handzic) of the Book Series on “Knowledge Management and Organisational Learning” (Springer).

**Airita Brenča** is a PhD candidate at the University of Latvia; she was working at the private University, „Higher School of Management and Social Work „Attīstība”” for 15 years as an academic and administrative staff and right now she is a Head of the Department of Development Planning and Project Management in Lielvarde Municipality.

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**Natalia Davidson** is from Ural Federal University, Ekaterinburg, Russia. Presenting her paper called "The impact of human capital and spatial concentration on enterprise productivity in Russia".

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**Roberto Garelli** is from The University of Genova, Italy. Presenting his paper on Intellectual Capital Disclosure and Awareness in Academic Spin-offs.

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**Karen Roland** is as an Experiential Learning Specialist, Karen develops methods with which to augment the field experience program. She consults and collaborates with all partners in the Faculty's teacher education program to assist in developing strategies to address social justice and equity issues in teacher education. Research: teacher education, knowledge communities, educational policy and administration.

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**José Viedma** is a Doctor of Industrial Engineering, a graduate in Economics and Professor of Strategic Management of Intangibles at UPC Polytechnic University of Catalonia and UPC School of Professional & Executive Development in Barcelona, Spain. Jose teaches and researches on the subject of knowledge management and intellectual capital management at the micro level and knowledge economy and knowledge based development at the macro level.. His international research has crystallized in practical methodologies such as ICBS, SCBS, CICBS, RICBS and NICBS. Further information can be found in:

**Maxim Vlasov** is a Serious science worker of Institute of Economics, the Ural Branch of the Russian Academy of Sciences Maxim investigates the problems of institutional and knowledge economics modeling.

**Aleksandra Zalesna** has PhD in Economic Sciences (Management). Her main academic interests are intellectual capital and human resource management (motivation systems for managers).

# **Keynote Presentation Outlines**



# **A Structured Literature Review of the Intellectual Capital Research: the Past, Present and Future**

**James Guthrie**

Macquarie University, Sydney, Australia

This plenary presents a structured literature review of IC articles that is as up to date as possible. The authors use and update the dataset from Guthrie et al. (2012) to include another five plus years of data, including all articles in the Journal of Intellectual Capital. The findings provide evidence that IC researchers now are firmly entrenched in the performative third-stage research of IC research, investigating “how” IC works in organisations rather than offering normative solutions.

The dynamics of IC studies are characterised, as in all disciplines, by its boundaries. The issue of boundary setting was in the past, the preserve of scholars, who had the academic freedom to decide what issues they wanted to address and what they deemed to be legitimate research. Guthrie and Parker (2014) argue that Powerful forces and entrenched groupings become the boundary setters and academics the machines of production. In allowing this to happen we make our world small and our part in it less meaningful.

The plenary calls for researchers to consider helping practitioners implement IC frameworks and models through interventionist research. In keeping with the performative third-stage IC research agenda, interventionist research makes it possible for academic researchers to act as a catalyst for implementing IC frameworks and models in practice. I will outline how IC research has developed in a group of selected journals, offer critique and outline future opportunities for research that has potential impact, rather than concentrating on already well-researched contexts.

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# Involuntary Disclosure of Intellectual Capital: Is it relevant?

**John Dumay**

Macquarie University, Sydney, Australia

Over the years, researchers have concentrated on understanding hidden, regulated or voluntary IC disclosures in all manner of company reports. However, as I argue in my recent paper in the Journal of Intellectual Capital (Dumay, 2016), there is a difference between reporting and disclosure. This talk builds on the difference between reporting and disclosure, and introduces the concept of “involuntary disclosure”, which I define as “what external stakeholders disclose about a company”. In this regard, I will argue that the most value relevant disclosures are not what a company discloses or reports about itself, but rather what stakeholders communicate to fellow stakeholders as increasingly timely, understandable and relevant. However, how reliable are involuntary disclosures, and how can disclosures that emanate from outside a company be verified? In the end, if involuntary disclosures are value relevant, how might companies seek to influence and manage them to serve their ends?

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# Research Papers



# Exploring the Framework of a Knowledge-based Economy at National Level: A Systematic Literature Review

**Sara Abdullah Al-Maadeed and Vishanth Weerakkody**

Business School at Brunel University, London, UK

**Abstract:** Globalisation and advancement of technologies have resulted in both developed and developing countries embracing the concept of Knowledge-based Economy (KBE) as part of their national strategy for sustainable economic development. In the literature, several studies have been conducted to examine the pillars, drivers and processes that facilitate the development of a Knowledge-based Economy at a country level. Using a systematic literature review (SLR), this paper aims to identify the core pillars, drivers and processes of KBE at a national level and understand the highlighted gaps in the literature that calls for future research. Mainly, the SLR was focused on seven countries that are acknowledged to be leaders in the field. The findings from the SLR highlight four key issues: (1) the lack of common agreement on the key pillars of KBE; (2) the absence of a generic approach to develop and evaluate KBE; (3) the scarcity of a methodology to identify an adoptable approach to support the growth of KBE at a country level; and (4) the need to better understand the impact of endogenous factors in developing a KBE at a country level.

**Keywords:** Knowledge-based economy, pillars, process, drivers, national, knowledge management

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## Figures and Images for Codification Intangibles: New Look at Business Knowledge Mapping

**Artem Alsufyev and Tatiana Gavrilova**

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**Abstract:** The goal of the current paper is to compare three forms of business knowledge codification techniques: traditional text-based, tables, and diagrams and explore aspects influencing perception of their efficiency. The stress is put on figures and images as visual forms of business knowledge codification. The primary cognitive benefit of visualization is the simplicity of extracting and synthesizing information. Our study proves that any form of graphical mapping is more effective thanks to the message's high capacity and ability to be understood by users. The authors conducted a study involving a self-reported survey of experienced top-managers of Russian companies and examined their perceptions of different

forms of knowledge codification. The results demonstrate that visual models are more effective than text-based or tables business knowledge representations in five out of six criteria. They are easiness to use, speed of perception, clarity and understandability, aesthetic pleasure, opportunity to use of operational activities. The survey found no significant difference between models on capacity to provide new insights criterion. Moreover, the current paper also explores certain aspects that influence the perception of efficiency of graphical methods such as gender, age, professional tenure, educational background, experience of working with mind mapping before and cognitive style.

**Keywords:** Business model; mind mapping; visualization; business model canvas; business knowledge mapping

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## **Intellectual Capital Elements Interaction and Company Financial Performance: Evidence from Russia**

**Tatiana Andreeva <sup>1</sup> and Tatiana Garanina <sup>2</sup>**

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**Abstract:** Intellectual Capital (IC) has been argued to be the key element of value creation in the contemporary economy, and this argument has been widely supported by empirical research, but mainly based on the data from developed markets. The questions of how IC and its elements work in emerging markets remains under-researched, and limited empirical evidence that exists contrasts the conclusions drawn from developed countries. The aim of the study is to provide empirical insight into the interaction between three main elements of IC (human, relational and organizational) and organizational performance of Russian companies. The sample includes 240 Russian manufacturing companies. The data is collected with the survey using the scales that have been already validated in international context. We use a two-step analysis – factor and regression analysis – to answer the research questions. The core managerial implication of this study is defining the key IC elements that influence company financial performance. We also reveal which interactions between the elements helps to increase financial results of Russian manufacturing companies. The paper contributes to further development of intellectual capital theory by investigating its application in a new institutional and cultural context of Russia.

**Keywords:** Intellectual capital, intellectual capital elements, interactions, organizational performance, Russian manufacturing companies

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# Sharing Knowledge in Public Service Networks: a Case Study of Employment Services

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<sup>2</sup>International Association for Knowledge Management

**Abstract:** Public services require efficiency and quick responsiveness. An effective management of knowledge and knowledge exchanges is vital. This paper addresses this issue by analysing the case of employment services, which have been subjected to profound reforms in the last years with the aim of providing services that fit the needs of local companies and workers. This is why today labour markets are often managed at local or regional levels, and are populated by wide networks of public and private intermediaries that try to match companies and workers locally. However, these networks require effective management of knowledge exchanges between players, efficient coordination mechanisms, and appropriate use of IT. The paper analyses the processes of knowledge exchange and sharing that characterises a significant case of networked public employment services: the Province of Vicenza, located in Northeastern Italy. The study is based on direct interviews with main actors, on the analysis of support systems and services (e.g. databases, portals), and of available documents. The players in the employment system are identified, and their structure, functions, resources and management approaches are examined. Particularly, the processes of interaction and knowledge sharing between players are analysed, and the web of knowledge exchanges mapped. The related issues of coordination and knowledge management are also investigated. The findings can help public policy makers and private company managers to set appropriate policies for employment services.

**Keywords:** Public services; knowledge sharing; knowledge exchanges; IT; employment services; case-study

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# Conflictology Culture: A Structural Element of Intellectual Capital Formation

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**Abstract:** The conflict area of activity begins as early as the smiles, the tears, the games children play appear and extends all the way to transnational disputes in economics, culture, science, religion, and family relationships. Conflict culture development has resulted in a scientific research methodology that allows an individual to explore, through the diversification of science, the different nature and correlations of intellectual capital, interaction of management theory and methodology. The problem becomes more topical due to the tendency of the dominant majority of the society toward apathy and complacency against conflicts. The aim of the research is the methodological systematization of the conflict factors in the intellectual capital formation process, taking into account the personality, the intellectual capital and the public culture development factors as well as the cross-cultural differences in the environment and time. In the research the nature of the concepts of “conflict”, “conflictology” and “intellectual capital” are explained and the overlaps and differences in research methodology are disclosed. Knowledge of conflict and its research methodology have been acquired and evaluated on the basis of humanitarian, social and exact sciences, religion, art, culture, public relations, as well as the practical experience in human sciences. The authors indicate that conflict is based on social objectives, intellectual capital capacity and personality interrelations. From a positive standpoint, conflict can prevent stagnation in the system, open the way for innovation; help to gather and mobilize the will of the people and resolve key issues. Conflict is defined as an ideological phenomenon, which shows that individuals and social groups often struggle for power, status, and value orientation (Coser 1979). Conflict is the norm of human life, thinking and evolving. Conflict is a socialization stimulus (Spenser 1903). The term “conflictology” consists of two parts “conflict-” and “-logy”. “Logy” (Greek “logos”) means teaching about knowledge and its diversification by approximating in order to resolve joint cognitive tasks. Conflictology explains human interrelations and interests; it is the applied science dealing with the harmony of an individual and the society, based on theoretical justification. Conflictology can determine the direction of development of society and the needs of the social system, changes in culturology, environment, action goals and

synchronisation of strategy, innovations. The cognitive theoretical framework of conflictology consists of a broad science base and interdisciplinary explanation and study using theoretical knowledge of real conflict situations, empirical data, social experience and methodology. It provides the resulting evaluation of research results and recommendations regarding the methodology of conflictology and analysis in connection with the practical implementation of conflict situations. In order to raise the intellectual capital capacity, it is necessary to analyze the causes and consequences of the conflict in accordance with the conflictology methodology. This article by utilizing generalizations provides positive problem solving potential action strategies of the conflict situation.

**Keywords:** Conflict, conflictology, conflict situation, intellectual capital, socio-cultural capital

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## How IC Enhances Product/Service Innovation in High-Tech Versus Low-Tech Firms

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**Abstract:** Knowledge resources (i.e. intangible assets or intellectual capital) and the way in which they are governed are deemed crucial for improving organizational performance. Innovation (understood as the creation of new knowledge) is fundamentally linked with intangible resources. Actually, intellectual capital has been widely considered as one of the main drivers of innovation, but the particularities embedded in this relationship remain unclear. The existing body of literature has repeatedly demonstrated that intellectual capital enhances innovation performance, though the analysis made has hardly considered how this relationship varies according to the technology intensity of the firm. High technology companies deal with more complex and tacit knowledge that should be frequently renewed. Since high and low technology firms differ in terms of knowledge, the relationship between intellectual capital and the development of new products and services is also expected to differ between both types of firm. Therefore, this study will address this gap by analysing how intellectual capital stocks influence product and service innovations in high and low technology companies. Data from 180 Spanish firms (representing both manufacturing and ser-

vice industries) was collected by means of a questionnaire. Structural equation modelling based on partial least squares was then utilized for analysing the data. The results obtained confirm the hypothesis that the relationship between intellectual capital and innovation differs according to the technology level of the firm. In high-tech companies managers should enhance human capital and external relational capital, whereas in low-tech firms, structural capital and external relational capital should be promoted. In other words, the management of intellectual capital should be dependent on the technology level of the firm. This study adds to the existing literature by showing that the technology level of the corporation is an important contingency factor in the relationship between intellectual capital and innovation.

**Keywords:** Intellectual capital, product and service innovation, technology level, human capital, structural capital, relational capital.

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## **The Rise and Fall of IC Reporting in Italy: Evidence From the Field**

**Maria Serena Chiucchi, Marco Giuliani and Stefano Marasca**

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**Abstract:** In the last two decades, scholars, practitioners and governments have underlined the relevance of reporting intellectual capital (IC). Analysing the evolution of IC research (Guthrie et al., 2012, Petty and Guthrie, 2000) and considering the fact that some “IC pioneers” companies, like Skandia, have abandoned IC reporting, a recent stream has underlined the need to investigate the use of IC reports “in practice” (Dumay, 2013, Guthrie et al., 2012, Mouritsen, 2006) in order to understand if IC reporting is something relevant or just a managerial fashion (Dumay, 2012a, Mouritsen and Roslender, 2009, Fincham and Roslender, 2003). Moving from these considerations, the aim of our study is to explore if, how and why IC reports are used by companies and if, how and why IC measurement and reporting practices do (or do not) stabilize. In order to achieve this aim, a field study approach has been adopted (Roslender and Hart, 2003, Kaplan, 1986, Scapens, 1990). The paper discusses some preliminary findings which extend extant knowledge on IC measurements and contributes to reduce the gap between theory and practice. More specifically, the paper highlights how the IC report is frequently a ‘personal business’, delves into the relationship with the social report and other company reports, discusses the determining role of some ‘key’ actors (i.e. project sponsors, project leaders, controllers) in affecting if and which kind of evolutions IC reports may undergo. Further, the paper sheds light on the IC ‘lock-in’ phenomenon in the accounting or in other domains. Finally it contributes to confirm the fragility of IC indicators. Differently from the majority of extant stud-

ies, this one is not focused only on the production of IC measurements and reports or on their peculiarities but also on their use. Moreover, it is not focused on a specific moment but adopts a longitudinal perspective. Finally, this paper is not centred on a single case study but offers insights collected from several organisations in order to have a broader view on IC in practice.

**Keywords:** Intellectual capital, reporting, measurements, non-financial indicators, field study, Italy, intangibles

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## **Intellectual Capital Disclosure and Awareness in Academic Spin-offs**

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**Abstract:** This paper examines reporting and measuring Intellectual Capital in academic spin-offs (ASOs). Thanks to an empirical survey on a set of ASOs' entrepreneurs, it aims at discovering if Intellectual capital is known, appreciated and disclosed in both internal documents and financial reports. The research evidences that ASOs' entrepreneurs have little knowledge of intellectual capital and also a low awareness of the potential role of this strategic pool of resources to enhance the firm success and performance. No reporting or measurement instruments are applied. Public policies and actions are suggested to fill this gap.

**Keywords:** Academic spin-off, intellectual capital, intellectual property, financial disclosure, technology transfer

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## **The sustainability of Internal Talent Pool through the use of Business Intelligence**

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**Abstract:** Organizations are currently limited in attracting new talented workers, due to constraints of various nature, as identified in the literature. Consequently, it is important that organizations can measure the quality of their human capital to optimize the investment in people development, and in order to create an internal Talent pool. It is assumed a segmented perspective in which the Talent Management (TM) is a kind of architecture between organizational strategy, shaped in the Business Plan, and Talent that allows achieving it. In order to reach

it, with more reliability, it becomes necessary to manage its intrinsic risk, through the acceptance or mitigation of inner uncertainty of the decision process, leveraging the return on investment. The purpose of this paper is to introduce indicators that enable organizations identifying their internal Talent, contributing to its policies, processes and practices in a way that they contribute differentially positive, enhancing the competitive advantage of the Organization, assuring its sustainability, in a more proficient manner, leveraged through the use of Business Intelligence systems (BIS). In this sense, Business Intelligence (BI) emerges as a way to facilitate managerial work, through decision support, executive information and management information systems. Therefore, it is needed to have a knowledge based structure to provide and facilitate the transfer and share of know-how, being an important type of systems for data analysis and reporting, providing timely, relevant and easy use of information, improving the quality of planning, the timeless and quality of inputs to the decision process as well as the outputs, using two human resources management (HRM) core processes: Job Design and Performance Appraisal. For the analysis of concepts/processes mentioned above, it was done an intensive literature review, using an inductive, qualitative, method, with an exploratory goal, that allows presenting a conceptual framework showing the interconnections between them, emerging the life cycle sustainability of Business Talent Fit. Therefore, this paper brings a new perspective on the sustainability of internal organizational Talent pool, in a pragmatic way, coupling human resources (HR) processes with BIS, through the use of important data inputs and the information outputs that allows being more proficient in that task, setting up theoretical and managerial contribution.

**Keywords:** Business intelligence, talent, internal talent, talent identification, talent indicators, sustainability.

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## **A Comparative study and analysis between the (Positive Traits and Personal Strengths) PP model and Current Security Compliance models**

**Jamal El-Den and Kumar Dangi**

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**Abstract:** Today's Organizations develop, formulate and update employees' security compliance policies and standards to ensure their adherence to the security requirements as well as the protection of the data/information. Prior research in the domain of human behavioural studies highlighted that internal threats predominantly are the result of poor employees' compliance, behaviours, and poor security compliance policies within the organization. In this research, we draw,

explore and analyse few findings in the area of behavioural compliance theories and accordingly we propose a new model (The Positive Traits, Personal Strength “PP Model”). The model is based on two main intellectual capital characteristics namely, the employee’s positive traits (courage, interpersonal skills, wisdom, positive experience, leadership skills) and personal strengths (self-efficacy, expertise, optimism). In this research we investigated the most widely used models for information security and we analysed these models by identifying their weaknesses and strengths and we finally compared these methods to the research’s proposed model and argued about the effectiveness of the model as compared to existing ones.

**Keywords:** Information security, compliance, positive psychology, behavioural theory, positive traits

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## **Social Networks and Intellectual Capital: new Forms for Knowledge Sharing**

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**Abstract:** The growth of cyberspace and the emergence of social networks marks a new era in the development of the intellectual capital. It has assumed new meanings and values that have allowed us to use it as a theoretical framework for the social networks' analysis. In social networks, the Intellectual capital can be affected by different variables depending on the type of community and by variables such as trust. It has significant influence on the creation of virtual social capital, although this is necessary but insufficient variable for the creation of Intellectual Capital. The main objective of the present study is to analyse and describe the experience in virtual social networks in relation to the management processes of knowledge creation and sharing. It is intended to identify if in social networks a sharing of knowledge is realized, through the development of cooperative processes, and, therefore, if there is the creation of an Intellectual capital and if it is usable even outside the specific context in which it is developed. Through empirical analysis based on the model C.E.D.A. (Complementary Exploratory Data Analysis Framework) and directed to 1000 Facebook users we have considered: if social networks create knowledge, if they are carriers of knowledge sharing, if it is promoted cooperative learning, if it has a soft power in business contexts, if cooperation acquired in virtual can become real.

**Keywords:** Intellectual Capital, Knowledge sharing, virtual social networks

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# Work Motivation of Tourism and Hospitality Students: Implications for Human Resource Management

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**Abstract:** The current study was designed to identify the motivation of undergraduate students of tourism and hospitality towards work. The main research problem investigated what motivates young people towards their current and future employment, in particular in tourism, and how recognition of these motivating factors can change the managerial approach. A questionnaire survey using Kovach's job-related motivators was applied (Kovach, 1987). The research was conducted in the higher education institutions that were enrolling students on tourism and hospitality courses and are located in the North of Poland, in Tricity, which is a well-known tourist destination. The study results demonstrate the importance of rates of pay, an intrinsic interest in a particular job and the opportunities for advancement and career development offered as the main motivating factors for undergraduate students of tourism and hotel management. These job-related motivators need special managerial attention when motivational strategies are drawn up to attract the young and to reduce the number of those who leave the industry after graduation. The findings contribute to the literature on tourism and hospitality management by providing a more thorough understanding of the factors that are crucial in shaping students' motivation with respect to their work and their intention to work in the industry after graduation. Practical recommendations for managers have been also formulated. The value of the research is connected with the fact that the findings contribute to understanding how to develop the intellectual capital of future workforce for the tourism sector by using motivating instruments. It is the one of the few attempts in Poland to measure motivating factors among tourism and hospitality students, and to the authors' best knowledge, one of the limited that use Kovach's job-related motivators. This study gives an opportunity to compare the findings and to discover potential differences in students' motivation towards work related also to a cultural and social context.

**Keywords:** Students; work motivation; employment; tourism/hospitality management

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# What Comes First? A Model of Intellectual Capital Management, Strategic Innovation and Novel Business Model Interaction

**Harold Harlow**

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**Abstract:** The last twenty years has seen an explosion in the ways that businesses relate to the external environment with increasingly diverse business models driven by entrepreneurial inventors and CEO/managers with a differing lens of the market and business environment. Entrepreneurs have developed new strategies to enter new markets and fend off competition using novel business model breakthroughs. Entrepreneurs in the new economy identify niches and develop new customers, new products and/or new architectural approaches (linking existing technologies in novel ways) to a market. Knowledge and information-represented by intellectual capital-have become increasingly important drivers of production and commerce. As important as intellectual capital has become, the business model which gains economic rewards from this intellectual capital has become even more important. Within this context, strategies have evolved that begin with the intellectual capital (driving innovation) and development of business models that support electronic business models. Do new technology and technology streams drive the development of novel business models or does the novel business model drive strategic focus and intellectual capital development (innovation) to serve the new business models? How does a business model for these emergent businesses develop and what elements of business model and strategy develop and with what is the sequential timing in this new environment? In this paper, I will draw upon several well-known companies (Amazon, Facebook, Apple and Tesla) and compare their progression through the strategic frontier of new and novel to develop a model of what comes first; strategy, business model or intellectual capital (driving innovation). This model will be valuable as managers develop business plans to bring new ideas to market or novel new business models to apply.. This paper explores the major model within the strategy, intellectual capital and business models using a literature review of each of these topics. The two models from this research offer some clear paths in this conceptual paper.

**Keywords:** Innovation, strategic knowledge, intellectual capital, disruptive business models

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# Intellectual Capital Optimisation in Microeconomic Sphere

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**Abstract:** The business performance is often measured by economic analysis aimed to examine the gross domestic product in conjunction with the social welfare assessment. It represents the sum of micro-effects and constitutes a significant part of the aggregate output. The size the micro-effects are subject to the quality of managerial decision-making processes involving the qualified estimates of future expected profits. To meaningfully improve the estimates of future profits cannot be realized without respecting the following principles:

- Focus on the selection of significant variables according to the Pareto principle 80/20 when assessing the project (i.e. those variables that most affect the researched problem, hence the problem solution and outcome);
- Construction of the problem solution on the bases of a recursive function (i.e. a sequence of steps within the managerial calculus, by means of which partial solution steps are implemented);
- The case-based reasoning approach (i.e. a reflection of a sequence of steps implemented by a recursive function).

The application of the above listed principles contributes to establishing an original and effective solution in terms of correctness, simplicity, transparency and credibility. To follow these principles requires knowledge of microeconomic laws, financial mathematics within managerial applications, as well as the ability to construct a solution “from the bottom up” (which unlike a solution “from top to the bottom” allows a tailor-made solution to the problem). It is recommended that managerial training includes the aforementioned skills. The evidence from collected surveys conducted at five academic institutions in the Czech Republic shows that the managerial seminars often focus on the “from top to the bottom” problem solutions (i.e., a model of a general formula that is adapted by an appropriate choice of parameters to a specific problem). In this way it bypasses the case-based reasoning approach, the principle of which lies in constructing the solution “from the bottom up”. The “from top to the bottom” problem solutions do not comply with requirements for the construction of a recursive function. As such, these solutions do not support the utilization of techniques commonly used in the process of selecting the best solution strategy. The aim of this paper is to discuss the above stated principles in support of improving managerial decisions, and to demonstrate these principles by means of a sample solution of a decision making process in the purchasing of technology items, as well as in the renewal process. The procedures are optimised based on the standard solution, which is

subjected to a detailed discussion. The application of the Pareto principle is used to identify a parameter that is less significant and therefore neglected in the optimal solution. As shown, such a solution is more simple and clear without any significant detriment to the accuracy of the result.

**Keywords:** Managerial solution, Pareto principle, case-based reasoning approach, recursive function, managerial calculus

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## Trust Restoration in Workplace Relationships: Multi-level Analysis of (Mis)Trusting

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*"Trust is like a vase, once it's broken, though you can fix it the vase will never be the same again." Unknown*

**Abstract:** Trust is emerging as more and more important intangible asset in organizations and their leadership to enable change and improved performance for achieving strategic goals. Trust forms a foundation for cooperation in workplace relationships. The paper discusses intellectual capital and its management looking at trust and trust development as intangible resource within organization and its work relationships. The paper focuses, more specifically, on analysing trusting, i.e. how trust or mistrust develops and trust is restored following the violation and breach of trust. Empirical findings are presented based on qualitative data from several sources. The aim of the paper is to increase understanding of trust development (mistrust and restoration). The purpose of the paper is to provide insights for further research and implications for both leadership practices and human capital skills development. Through building and sustaining trust (avoiding mistrust) in work relationships competences of human intellectual capital may be enhanced for enhancing business competitiveness. Studying mistrust and trust repair is important, as empirical studies of trust development show that the process is dynamic, rather sensitive and appears as "the dynamics of evil" which may be even unintentionally boosted. The process of trust development in interpersonal relations is perceived as 'wavelike' with splashes and calm, occurring in several episodes and phases. Interpersonal trust building begins as early as during the recruitment process and stage of initiation. If the opportunity and importance

of trust-building is poorly understood and performed the initiation, for example, may lead to situations of mistrust and later on even in trust violations in trusting relationships between, say, the supervisor and subordinate unless, where trust between actors may need to be restored. In the theoretical section intellectual capital and its management is discussed. In order to operate in product and/or services markets, an organization combines different types of resources, intangible and tangible, such as human competencies, skills and knowledge, social structures, infrastructures and financial assets. Intangible resources have become a critical success factor for enterprises operating in a knowledge based economy. In the paper, distrust is dealt with in more detailed dealing with the situation of trust violation and breach. This paper adopts a relational view of trust meaning that trust is seen as *intellectual, relational asset* developed and sustained in interaction between people and forming a foundation for collaborative learning and cooperation in organizations. Trust is commonly reciprocal activity between individuals and within groups in organizations. It is built in interaction involving communication and other activities in daily operations. In today's management multi-channel communication occurs more and more technology-mediated which challenges ways, frequency and skills of interacting. The empirical part of the paper analyses trust in workplace relationships based on empirical qualitative data from multiple sources (case, narratives, interviews) and levels (individual, dyadic and group levels). The research questions are *how mistrust develops and how trust is restored following trust violation or breach*. The findings show that trust may be restored but it may be challenging. The paper suggests a few implications to avoid mistrust and restore trust. Leadership and leaders role in sustaining trust is also discussed.

**Keywords:** Intellectual human capital, intangible assets, multilevel trust, relationship, restoration of trust, qualitative study

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## **Identifying Human Needs in Organizations to Develop Sustainable Intellectual Capital – Reflections on Best Practices**

**Alexander Kaiser, Florian Kragulj and Thomas Grisold**

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**Abstract:** Our modern economy is characterized by a fast-changing and unpredictable business environment in all areas and sectors. Several authors argue that organizations must meet these conditions by developing sustainable intellectual capital (IC). We propose to consider and implement human needs to build up sustainable IC, which is necessary for the organization's long-term success. In the

realm of knowledge-based management, we have developed a methodological framework to generate explicit knowledge about human needs in organizations, which we call Bewextra. Combined with the organization's expertise, explicit need knowledge fosters the reinforcement of IC which in turn allows for developing need-based transformation strategies. Over the past few years, we conducted several successful organizational learning processes where we used human needs to develop IC. These projects covered a variety of organizational domains regarding organizational scope, business environments and size. Thus, we gained vast experience and rich empirical data. In this paper, we reflect on factors, which we found to be decisive for organizational learning processes to develop sustainable IC. Accordingly, the research question is the following: *Reflecting on case studies from diverse organizational domains and contexts, what are methodological key factors for enabling sustainable IC in need-based organizational learning processes?* To answer this question, we employ a multi case study about projects we conducted over the past few years to then discuss methodological key factors to enable sustainable IC.

**Keywords:** Organizational learning, knowledge-based management, need knowledge

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## Defining an Intellectual Capital Based Measurement Framework for Dynamic Distributed Software Development

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**Abstract:** The paper presents the ongoing defining of a measurement framework with an intellectual capital (IC) perspective for dynamic distributed software development (DDSD). The topic examines building the capabilities, evaluating the efficiency and scaling up the performance of globally distributed software development teams in environments that demand high operational excellence and innovation performance. The University of Tampere, Haaga-Helia University of Applied Sciences and the University of Helsinki are collaborating on a research project, DD-SCALE (2014-2016), with four industrial software companies working at the forefront of their industry. The objectives of the project are to investigate and develop measurement solutions, tools and work practices for managing and eval-

uating DDSD work. The project addresses the challenge of harnessing human and social capital assets for scaling high-performing teams to fit with high-performing organizations. The research questions are: 1) What are the applicable dimensions, in the context of IC, of a comprehensive and scalable measurement framework for DDSD? 2) What are the relevant indicators for measuring the performance of DDSD? 3) How can a framework, its dimensions and indicators be effectively implemented in practice? The chosen research approach is design and action research that has a qualitative emphasis. The theory perspectives of IC, performance management and distributed software development are applied. First, literature reviews were conducted. Next, data was collected from the participating companies by the means of interviews and workshops. The collected data was then analyzed by conducting a qualitative content analysis. The findings were then utilized for constructing the dimensions of the framework, identifying the measurement indicators, and designing prototypes for the implementation of the framework. Thus far, the results include: 1) the human, structural and relational capital dimensions of the measurement framework that can be combined for examining companies on individual, team and organizational levels; 2) a categorized set of candidates for indicators; and 3) an outline of the construction as well as preliminary prototypes for implementing the framework. The next steps of the research will include the advancement of the construction of the framework and prototypes. Examples of applicable deliverables derived from the construction will include a mobile barometer tool and an impact analysis solution for assessing DDSD work. The results will contribute to the management and development of work practices and help to realize the implementation of high performing software research and development (RD) operations within a dynamically and globally distributed setting.

**Keywords:** Dynamic distributed software development, distributed teams, evaluation metrics, intellectual capital, performance management, software measurement

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## **Human Capital of the 21st Century in Coworking Centers**

**Jaroslava Kubátová**

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**Abstract:** Many studies have shown that companies are struggling with a lack of necessary human capital, which is mainly found in knowledge workers. In this contribution we have dealt with the localization of human capital of knowledge workers in today's world. The goal of this contribution is to prove that a part of

human capital is moving from the traditional labor market to new places (to the virtual labor market, to coworking centers, often as freelancers), and employers must be able to use this human capital. Firms which are not able to adapt their management of human capital to the current trends will have an increasingly hard time acquiring talented employees. On the other hand, companies which are able to use human capital present on the virtual labor market have a competitive advantage. Technological development enables totally new ways of knowledge work, which satisfy the needs of mainly young knowledge workers better than traditional forms of employment. A significant part of knowledge work can be done using information and communication technologies, i.e. virtually. The virtual labor market is being developed and a lot of knowledge workers have made the decision to enter this market as freelancers. A special phenomenon of this time is a dynamic development of coworking centers worldwide (namely in those parts of the world where access to the Internet and other necessary infrastructure is available). At the same time, both dependent and independent virtual workers start concentrating in coworking centers, once the boom of home offices has faded away. In these centers they continue doing their normal work, but at the same time they can establish social contacts, which results in further development of social capital. In this contribution we have analyzed both trends: the development of the virtual labor market and coworking centers on the one hand, and opinions of Generation Z regarding their professional careers on the other. At this time Generation Z members are either entering the labor market once they have graduated from high school, or are starting their university studies. Data sources are both international studies performed earlier, and our own research dealing with the development of coworking and work needs of Generation Z in the Czech Republic. At the end of this contribution we have synthesized all the acquired information based on which we can assume that coworking centers will concentrate a significant amount of human capital. The total amount of available human capital might even grow since new ways of traditional knowledge work enable the engagement of even those, for whom it would be impossible to find traditional jobs due to various reasons. These findings are valuable both for companies employing such workers, and for knowledge workers themselves, since they may not be aware of the usefulness of their human capital, and also for universities preparing future employers as well as future knowledge workers.

**Keywords:** Coworking, freelancing, generation z, human capital, virtual labor market

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# An Intellectual Capital Perspective for Good Governance of the Public Sector

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**Abstract:** Societies and economies are constantly changing throughout the different periods in time. Over the years, many socio-political changes have taken place leading to new structures, relations and means of communication. Even if we do not directly realize it, public entities are heavily relying upon intangible assets, and intellectual capital is gradually being revealed as a crucial element for fostering sustainability and, genuinely, for improving operations and services. Now, more than ever, explanatory mechanisms need to be developed for assessing the intellectual capital role in the Administrative Reform processes. At the same time, public entities through Good Governance principles become intellectual capital “creators” either within the wider public management environment or within the society and the economy as a whole. The aim of the paper is to provide an intellectual capital management perspective for Good Governance in the public sector that is undergoing an intense modernization and restructuring process. Nowadays, although intellectual capital resources are involved to a great extent in the management of public entities, they are treated as the “Cinderella” of resources. Usually, such resources are not properly identified and managed, as public management does not completely recognize their significance. Yet intellectual capital may enhance the overall performance, innovativeness, and the total assets held by any public organization. This work is grounded on a selected literature review in such a way that the public sector’s reform process is being placed under the lens of intellectual capital. Good Governance characteristics - mostly non-tangible in nature - are presented, treated and explored as value parameters of the administrative reconstruction process. In fact, we focus on the Good Governance axiomatic criteria, and we discuss their relevance to intellectual capital management by briefly presenting some indicative cases of Greek public sector services which are based on administrative reform policy planning. The analysis suggests an Intel-

lectual Capital metrics Balanced Scorecard as a good governance policy tool and highlights the need for further research.

**Keywords:** Intellectual capital, public sector, administrative reform, good governance, balanced scorecard, Greece

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## **Knowledge “Utilisateur” and Knowledge “Usager”: The Need for an Evolving Assistance**

**Benoit Le Blanc and Marc Kaltenbach**

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**Abstract:** Knowledge involved in the use of tools, devices, systems or services often do not come naturally to users. This paper exploits a difference common in the French language between “utilisateur” and “usager”. Both words are of common use and are translated in English only by “user”. They reflect two extreme ways to mobilize knowledge for people engaged in an activity. The aim of this paper is to highlight, explain and exploit the difference and show that user assistance must evolve from one to the other. We begin by considering a variety of knowledge needs in a progression of more and more global tasks, i.e. use of tools, devices, intelligent devices, services and show that for each of them some progress can be achieved to better manage the relevant knowledge. Then we show that considerable efforts are currently being made in order to provide the help users need at the various stages in the mastery of a task. We conclude with some recommendations for a better management of our Knowledge Capital.

**Keywords:** User, Task, Knowledge acquisition, Tools & Services

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## **When Intellectual Capital Meets Personal Data: A Solution for “Intellectual Privacy”**

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**Abstract:** Customer lists are a fundamental component of the intellectual capital of businesses. On one side, companies want to protect the economic relationships between businesspeople and customers; on the other side, the new technologies (and in particular Big Data) have extremely developed the potentialities of customer information for companies, especially by the means of “data mining”: behaviour evaluations, forecasts, studies on life expectancy, personalized marketing plan, pricing, automated profiling, credit scores, etc. Such an intellectual work on

customer information is highly valuable and needs specific protection. Traditionally, trade secret is the intellectual property right used to protect these data. In general, this new privacy framework risks to threaten the intellectual capital of businesses and to discourage innovation and competitiveness in terms of development of big data, economic relationships and marketing patterns. Therefore, the only possible solution is a technical solution: we propose a form of “de-contextualized” shared ownership on this intangible property. We propose, on one side, to develop interests that are common to data subjects and trade secret holders (security measures, accuracy, data updating) by the means of “cooperation” between customers and businesses. On the other side, we propose a new taxonomy of personal data, based on the different level of “relationship” between subjects and data and on the different degree of intellectual activity involved in the collection, extraction and processing of such data.

**Keywords:** Intellectual privacy, data protection, trade secrets, personal data, customer data, client lists

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## Intellectual Capital Model for Mexican Public Universities

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**Abstract:** Statement of the topic. Intellectual Capital (IC) is a strategic resource. It summarizes the intangible values at universities because it has a function of self-analysis. As such, it is necessary to recognize the different links between various IC types in order to have a useful model to contribute to active knowledge management and create competitive advantages in public universities in Mexico. Objective: To propose an IC model for Mexican universities aiming to support IC measurement and management approaches as part of strategic management. Hypothesis: There are interrelationships between Human Capital (HC), Static Structural Capital (SSC), Dynamic Structural Capital (DSC) and Relational Capital (RC) in a Mexican university. Design/methodology/approach: Data was gathered by means of survey integrated by 18 items comprising a Guthman type scale with alternative answer options ranging from 1 to 10 on a line that represents the opposites of continuum descriptors (adequate-inadequate). The sample was non-probabilistic sample (n=187), and it contained managers and academic professors

from a Mexican university. The reliability of the measurement scales (Cronbach alpha) was greater than 0.85. LISREL 9.2 was employed to conduct confirmatory factor analysis (CFA) in all IC constructs and partial least squares (PLS) was employed to assess the measurement model and test the research hypothesis. The model goodness of fit indices were acceptable (RMEA=.0515, NNFI=.973, PNFI=.700, GFI=.932). Conclusions: This model might help to improve the management of IC at Mexican universities because it provides high quality information. To be effective, IC management has to cope with some managerial attitudes (e.g. from a college authorities) and political barriers.

**Keywords:** IC Model, Mexican universities, knowledge workers, human capital, structural capital, relational capital

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## **Intellectual Capital and Firm Performance: Static or Dynamic Estimation: Evidence From UK**

**Muhammad Nadeem, Christopher Gan and Cuong Nguyen**

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**Abstract:** The existing literature on Intellectual Capital (IC) and firm performance has often ignored an important econometric aspect i.e. the presence of endogeneity. We apply a series of tests such as dynamic OLS and strict exogeneity test to prove that this relationship is dynamic in nature and the application of static estimators such as the traditional OLS and fixed-effects can potentially generate biased results. This study uses dynamic panel data estimation to overcome the problem of endogeneity in analysing the relationship between IC and financial performance of the firms. We use two-step system generalized methods of moments estimator which can incorporate this dynamic relationship to provide valid instruments in order to overcome unobserved heterogeneity and simultaneity issues. Our study includes 774 publically listed firms from the London Stock Exchange for the period of 2005 to 2014 to measure the relationship between IC efficiency (measured in terms of VAIC) and firm performance (in terms of ROA, ROE, ATO and P/B). Our results reveal that IC efficiency (VAIC) is positively and significantly related to firm performance particularly with ROA and weekly with ROE but insignificant with assets turnover and P/B ratio. We extend our analysis to individual components of VAIC i.e. human, structural and physical capital and find that structural capital and physical capital are significantly related with firm performance. Human capital is not significantly correlated with firm performance whereas this relationship is significant when we apply static OLS and fixed-effects in our study. The interaction terms of IC and financial crisis 2008 report that IC efficiency is generally unchanged during the financial turmoil. We also find that

current IC efficiency is related with past firm performance up to three years which means that investments in IC resources take some time to payback. These findings are useful for policy makers who decide about investments in IC resources.

**Keywords:** Intellectual capital, endogeneity, dynamic panel data estimation, VAIC, human capital, static OLS

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## How Much Organizational Slack and Attention Affect Firm's Performance?

**Beatrice Orlando, Antonio Renzi and Giuseppe Sancetta**

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**Abstract:** The paper explores the relationship between firm performance; intellectual capital, originally expressed as a bundle of different organizational slack types; and attention. In particular, we argue that each type of slack and attention has a different impact on firm performance and that slack reflects that specific endowment of intellectual capital, usable to foster performance and growth. We use the market to book value to measure both firm performance and, indirectly, the endowment of intellectual capital. This ratio is largely employed as a proxy measure for intellectual capital: the value of intellectual capital is roughly equal to the gap between the market and the book value. Organizational slack is a cushion of excess resources, upon which the firm could rely in case of uncertainty. We group slack types according to the easy-of-recovery taxonomy. We also consider organizational attention, a further expression of intellectual capital. Overall attention is given by the sum of the attention toward the internal environment and toward the external environment. We test our hypotheses on a sample of large companies operating in the energy market. Our findings show a significant positive relationship between the market to book ratio and both the unabsorbed and potential slack, which reflect, respectively, the organizational capital and the relational capital available for investing in firm growth. On the converse, the absorbed slack has a moderate influence on this gap (it is a measure of organizational capital hardly recoverable for new investments). Consistently with the model, attention is negatively related to the market to book value. In fact, it represents all those expenses made to reduce the discrepancy between the market to book value. However, those expenses reduce the firm's potential of making new investments, since they are resources already allocated in previous projects and almost unrecoverable.

**Keywords:** Organizational slack, performance, attention, decision making, energy market; intellectual capital

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## New Item: Potential of Knowledge Generation

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**Abstract.** The resource potential of knowledge generation, consisting of the set of tools and capabilities for the implementation of the intellectual activity of the enterprise, is developed on the basis of the lifecycle of products for industrial enterprises. Weighted coefficients are expertly determined by the application of resources at each phase of the intellectual activity algorithm. Formalised resource use weighting coefficient values are compared with the actual work carried out by a major state-owned enterprise. A direction for the optimal use of resources to meet actual production orders is formulated by differences between theoretical and actual potentials.

**Keywords:** Industrial enterprises, knowledge generation, intellectual activity, resource potential, economic institutions, optimisation

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## Four-Component Model of Intellectual Capital and Its Impact on Process and Product Innovations

**Jasna Prester, Najla Podrug and Maja Daraboš**

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**Abstract:** Today in an extremely fierce and global competition, companies need to innovate to survive and create at least a temporary competitive advantage. This work researches literature on creativity, innovation management and intellectual capital literature and by doing so proposes a robust model of intellectual capital (IC) with four components that can possibly explain constituents on innovation and give prescriptions on how to enhance innovation. Apart from current literature that researches intellectual capital as an internal driver, our model includes external social relationships. The article empirically tests four-component model of Intellectual capital. The model is tested using Structural equation modelling on a large sample of 890 companies. The variables in the survey are drawn from previous literature therefore ensuring content validity. The results show a robust confirmation of the model. This proves the necessity of the fourth component – External social capital as an important component in Intellectual capital and its influence on innovation. The research also clearly shows how each component of intellectual capital affects product and process innovations. This works adds value

to the work of Subramaniam and Youndt (2005), but who tested only a three-component IC model.

**Keywords:** Intellectual capital, innovation, product and process innovations, GMRG survey

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## Elements of Individual Knowledge: A Practitioner's Perspective

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**Abstract:** The current smart economy has defined new rules for economic leadership where Intellectual Capital (IC) has become the foundation of wealth creation. The ability of organisations to compete in today's complex business climate relies on effective management of intangibles and the development of strategies to leverage and exploit knowledge assets. Yet, knowledge is intrinsically linked to individuals and their exclusive capabilities to execute knowledge processes, such as creation and sharing in addition to their competence in utilising available IC to drive organisational performance. Knowledge-holding employees are key knowledge assets which lead the organisation's efforts to create value, overcome challenges, and confront uncertainty. However, despite the fundamental role of individuals in firm knowledge dynamics, the IC and Knowledge Management (KM) literature often addresses organisational knowledge holistically, seldom focusing on its individual-based origins. The purpose of this study is thus to investigate the concept of individual knowledge and explore its underlying constructs based on the views of both practitioners and researchers. Moving from a literature review, the industry perspective is introduced through the findings gleaned from semi-structured interviews of a number of senior managers from various industries. Interviews explored managers' conceptualisations of the individual knowledge notion and their perceptions of the unique attributes of knowledge holders. Qualitative interview responses are interpreted through thematic analysis of the data to identify themes and gain practicable insights. Managers highlighted a number of elements of knowledge that contribute to IC and KM and practice. The identified dimensions of individual knowledge are summarised in the proposed *IK<sup>4</sup> Model*, which offers a simple yet comprehensive framework to operationalise the individual knowledge concept in organisational contexts.

**Keywords:** Knowledge management, individual knowledge, knowledge creation, knowledge sharing

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# Social Network Based Leadership Decision Making Supported by Social Capital, Knowledge Management and Emotional Intelligence

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**Abstract:** Literature reported a demand for improving the healthcare (HC) service quality, which arose in response to the high rates in patient dissatisfaction due to the highly reported rates of physicians' diagnostic errors. Current research focused on social networks that facilitate HC professionals in sharing knowledge to support their style of decision making (DM). Furthermore, in addition to effective knowledge, leadership skills are also required by physicians for effective decision making (DM). While past research argued on the importance of leadership for DM while predicting this relationship on the supportive role of knowledge management and emotional intelligence, this study extends previous research to further propose a supportive role of social capital of resources, using social networks, to better understanding the role of emotional intelligence to achieve improved HC service quality.

**Keywords:** Leadership, decision making, social capital, networks, healthcare emotional intelligence

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## Building Professional Capital Through the Development of Teaching Partnerships

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**Abstract:** Twenty-first century skills in the classroom demand change within current teacher training and practice. Hargreaves and Fullan (2012) purport that *professional capital* is comprised of three kinds of capital: human, social and decisional (p.3), and that human capital – having the requisite knowledge and skills (p.89), is dependent on the power of social capital to create and transfer knowledge in communities. In this study, pre-service teacher-candidates participated in weekly Professional Learning Communities (PLCs) facilitated by teacher-mentors. The positive impact of PLCs for teacher professional development has

been noted in the literature, therefore this study sought to contribute to this body of knowledge by investigating a potential shift in the pre-service teacher mentoring model in teacher preparation programs from a traditional hierarchical model, to a collaborative and reflective model within a PLC context. The study explored the impact of teacher-candidates' participation in PLCs on their knowledge and implementation of research-based practices in education, their ability to reflect and collaborate with colleagues, and on their development of a professional identity. Using an ethnographic methodology, data was collected through participant-observation and analyzed through the lens of Kosnik and Beck's (2009) seven key elements for teacher preparation, and in consideration of Hargreaves and Fullan's (2012) work on *professional capital*. Results indicated that teacher-candidates found the PLC model for mentoring highly effective in developing their teacher efficacy, increasing their knowledge of curriculum, instructional and assessment practices, and developing their collaborative and reflective skills. The results of this study suggest that further exploration of PLCs utilizing a non-hierarchical mentoring model to build professional capital, may support the development of intellectual capital and on-going learning for both pre and in-service educators.

**Keywords:** Professional capital, professional learning communities, teachers, teacher training, professional capacity, mentorship

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## **Inventive Intellectual Corpus Analysis Applied to Incremental Technological Innovation**

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**Abstract:** Our concern deals with the Knowledge Based Innovation domain in an industrial context. When a creative idea is generated, its transformation into new knowledge depends on a cycle associating three subsystems and highlighting the link between idea and knowledge: the individual who generated the idea, the knowledge field which acts as a reference repository and the knowledge community who evaluates, selects and validates relevant ideas. Usual innovation dynamic is based on creative problem solving (from problem to solution). This paper covers the reversibility of the link idea-knowledge, that is to say the passage from knowledge to inventive idea. We promote an *ab nihilo* innovation dynamic (from ideation to innovation). In this paper, we propose an inventive idea generation method which takes advantage of the inventive intellectual Corpus of Knowledge actors. The research is dedicated to the epistemic connection between the struc-

tural analysis of knowledge contained in inventive intellectual Corpus and the ideation seen as inventive knowledge generation. Our methodology consists in building a theoretical representative model and in validating it through experimentation. Model's input data represent a cognitive stimulus and model's output data consist of a prospective vision. Cognitive stimulus is based on in-depth analysis of the texture of knowledge structuring the inventive intellectual Corpus. Results include experimental validation of the Knowledge Based Innovation approach. Our contribution consists in showing that ideation, stimulated by the critical analysis of the structure of knowledge lying in the knowledge actor's inventive intellectual Corpus, can be seen as an epistemic mutation, where source, process, results, corpus and knowledge actor can be assimilated as a unique entity. An illustration of possible software implementation is given, derived from existing KM extraction software suite.

**Keywords:** Stimulated creativity, intellectual corpus analysis, knowledge based innovation, KM analysis tool

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## **Corporate Eco-innovative Entrepreneurship for the Application of Human Capital at Regional Level**

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**Abstract:** The general purpose of this multidisciplinary research study is to describe the role of the human capital involved in the determinants of the corporate eco-innovative entrepreneurship for sustainable innovation. In this study, the concept of corporate "eco-entrepreneurship" is believed to refer to the development of new ideas and opportunities within established businesses through eco-innovation, directly leading to the improvement of organizational profitability and the improvement of the firms' environmental performance. The objective is to determine the potential of corporate "eco-entrepreneurship" for eco-innovation in business in a regional context. To develop the study, specific databases from primary sources of a sample of proactive companies in eco-innovation have been designed and analyzed in the northeastern Spanish region of Aragón. Starting from the obtained results, the main overview of common eco-innovative practices in terms of human capital for corporative entrepreneurship in firms is described.

**Keywords:** Corporate entrepreneurship, eco-innovation, human capital

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# Using Financial and Entrepreneurial Literacy of a Region's Young Population

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**Abstract:** Competitive success of regions can be an important driver for attracting more talent and to counteract decay. Increasingly, regions and even cities may be forced to act in ways which in the past were mainly attributed to firms. Demanding more entrepreneurial spirit from the regional business community is unlikely to be effective, if the regions themselves cannot put forward a leading entrepreneurial spirit transcending single firms, be it in offering bold incentives or in making local Intellectual Capital (IC) more attractive and accessible. We propose to research both factors and effects leading to increasing chances for young candidate entrepreneurs (YCE) to succeed on South East European (SEE) markets. This research attempts to uncover deficiencies to be found in pertinent social and technological knowledge management (KM) of some SEE regions. From the methodological point of view we begin by asking: what are nonstandard features or influences of small and medium enterprises (SME) which are notoriously absent in SEE. A literature review leads to the following two main groups of influences: a) venture capital (VC) and crowdfunding (CF), and b) the technologically highly specialized yet economically mysteriously successful hidden champions (HC) as can be found at present mainly in Western and Central Europe. As findings we propose a knowledge based model cycle which considers awareness of highly successful but less well known models of entrepreneurship, e.g. like the ones used by hidden champions. In the model cycle, entrepreneurial success may also be associated with different startup catalysts such as venture capital and crowdfunding. The study has the limitation of relying on insights and data concerning mainly the financial literacy of young people found in a SEE region. By extrapolating to entrepreneurial literacy of persons which may be related to regional IC as sketched in the model cycle, we hope to eventually propose effective instruments in order to attract economically more resilient SME which help to transform otherwise decaying or structurally underdeveloped regions.

**Keywords:** IC & knowledge management, financial and entrepreneurial literacy, competitiveness of regions, crowdfunding, venture capital, hidden champions

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# A Holistic System for Measuring the Performance of Teachers and Students

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**Abstract:** To increase the efficiency of a higher education institution (HEI) in value creation, there is a need to establish a correlation between a system for the teacher's performance evaluation and a system for the student's knowledge assessment. Traditional indicators such as Key Performance Indicator (KPI) for teachers and Grade Point Average (GPA) for students are not sufficient to create a holistic system for measuring the efficiency of the HEI. To overcome this drawback, the performance of teachers and students should be measured using new indicators such as Intellectual Capital Indicator (ICI) and Employability Readiness Indicator (ERI). This is an exploratory study aimed at developing a conceptual framework for measuring the efficiency of HEIs in knowledge transfer with the help of both traditional and new introduced indicators. While ERI measures competencies enabling future graduates to successfully compete in the labour market, ICI measures qualifications of academic staff involved in the development of these competencies. The minimum efficiency can be reached if KPI approximates ICI and both increase as well as GPA approximates ERI and both increase. The correlation between KPI and GPA has to be checked by similar relations between ICI and ERI. The more positive correlation between ICI and ERI, the more efficient is the HEI in knowledge transfer. Finding a degree of the correlation, one can judge whether an input in the form of teachers' intellectual capital brings an adequate outcome in the form of graduates' employability. It helps identify shortages in the design of the educational program and in the organisation of the education process which should be regarded as resources for the enhancement of the education quality and the HEI's efficiency in developing graduates' competencies.

**Keywords:** Employability readiness, graduate competencies, performance measurement, student assessment, higher education, knowledge transfer

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## Theories and Components of Knowledge Competence

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**Abstract:** Knowledge competence has become as an important field for research and practice since its strategic importance for creating and sustaining company

performance. In this study, knowledge competence is building on theoretical foundations from resource-based view, knowledge-based view, and competence-based view of the firm. These theories are being used as foundations for identifying knowledge competence components, i.e. knowledge assets, knowledge learning, and knowledge sharing that provide a rationale for defining and managing knowledge competence. An analysis of the theoretical foundations of knowledge competence reveals several factors that influence knowledge competence in organizations and can be base for further empirical research.

**Keywords:** Knowledge competence, knowledge management

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## **IP Strategies in Academic and Corporate Spin-Offs: a Theoretical Framework**

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**Abstract:** Literature highlights substantial differences between Academic Spin-Offs (ASOs) and Corporate Spin-Offs (CSOs), considering their characteristics as some of the causes that could affect their growth capacity along the time. Most of the studies refer to various factors like the entrepreneurial attitude, education, efficacy of technology transfer services and, just in few cases, realizing a comparison among ASOs and CSOs dimension and competitiveness. Focusing on factors related to Intellectual Property (IP) rights, this paper gives a contribution in defining a theoretical framework useful to highlight the main differences between ASOs and CSOs, identifying the impact of these differences on their growth rates. In particular, the paper describes the technology exploitation process used by Academic and Corporate Spin-Offs, extracting “phases” and “IP strategies” adopted in both cases. The framework contributes to demonstrate if and how different IP strategies implemented by ASOs and CSOs have an effect on their growth rate, in the attempt to support or not a recent point of view of some scholars that observe higher success rates in independent companies compared to academic ones.

**Keywords:** Intellectual property, academic spin-off, corporate spin-off, IP strategy, growth rate, technology exploitation.

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# Knowledge Management in New Product Development: Leading Innovation Teams

**Mariza Tsakalerou**

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**Abstract:** Product development is the process of bringing a new product to the marketplace. The product development process engages mixed teams with personnel from design, engineering, manufacturing and marketing working in tandem at all times. Given the complexity of the information flows in such a process, value creation in product development is almost exclusively based on intangible resources. The successful management of intellectual capital has emerged as a key condition for effective organizational learning in the innovation process. Empirical research in the past has provided some evidence that a team leader's emotional intelligence impacts new product outcomes. Recent research however indicates that emotional intelligence at the individual team member level may contribute more to creativity in new product development. The objective of this paper is to present a pilot study to assess the way group member emotional competencies impact the success of the innovation process in the presence of moderating factor such as project complexity. In this context, 22 scientists and engineers were asked to work in small groups and tasked to develop a few innovative product and service concepts. The concepts presented were assessed both in terms of their perceived complexity and in terms of their presumed performance in the market. The data collected were then analyzed against the emotional intelligence makeup of the members of each group. The aggregation of the findings of this pilot study in a small number of classes was used to identify only major trends in the data. The moderating effect of project complexity on the relationship between emotional intelligence of the design group and success in product development projects was thus assessed in detail. The results of the pilot study indicate that emotional intelligence improves team interactions, facilitates the management of intellectual capital and does indeed affect innovation performance.

**Keywords:** New product development, innovation process, intellectual capital, emotional intelligence, knowledge management

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# The Impact of the IoT and IoE Technologies on Changes of Knowledge Management Strategy

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**Abstract:** This article analyzes the potential of information and communication technologies, their influence on the competitive advantage of the business companies and suggests new approaches to increase capitalization. The new approach is to use the principles of technology Internet of things (IoT), Internet of Everything (IoE), which proclaim the principles - Connect everything, innovate everywhere and Benefit everyone.

**Keywords:** Internet of things (IoT), internet of everything (IoE), smart networks, network transaction, smart wisdom, networked intellectual capital

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## Intellectual Capital Efficiency Ratio (ICER) and Company Performance: Evidence From Polish Listed Companies

**Grzegorz Urbanek**

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**Abstract:** Intellectual capital (IC) plays an increasing role in value creation for companies. IC-oriented companies are also the winners in terms of value creation for shareholders. Therefore knowledge about the state of intellectual capital and its constituents, in addition to standard company analysis based on information from financial statements, is crucial for the complete evaluation of firm standing. Intellectual capital is a subject of many studies, which examines the relationship between its level and different measures of firm performance and other characteristics. Within the last decades there have been a number of methods developed to measure intellectual capital and its constituents. Alas, none of these methods has been commonly accepted. This article contributes to the intellectual capital literature with proposition of new method for IC measurement – Intellectual Capital Efficiency Ratio (ICER) and investigation of associations between this ratio and its constituents with different measures of firm performance. Research was conducted for the year 2011 based on the sample of 211 companies listed on the Warsaw Stock Exchange. This study reveals strong, significant and positive relationship between ICER ratio and its constituents with company performance measures: return on assets (ROA), return on equity (ROE), economic profit margin

(EPM) and significant and positive but weaker relationship between ICER ratio and its components and shareholder value measure – price to book value (P/BV).

**Keywords:** Intellectual capital, company performance, intellectual capital efficiency, shareholder value

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## **The Pros and Cons of Benchmarking in the National Intellectual Capital Measurement: A Strategic Management Approach**

**Lina Užienė and Virginija Januškaitė**

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**Abstract:** There are lots of methods proposed in IC literature on how to measure IC of nations. Yet, none of them has been widely used among policy makers. Benchmarking is seen as the most common technique applied in national IC measurement. Advantages as well as disadvantages of benchmarking are referred in IC literature. However, comprehensive research on this issue is still missing. This contribution is intended to carry out investigation of the pros and cons of benchmarking in national IC measurement summarizing knowledge on its benefits and limitations from strategic management point of view. Discussion within the paper is focused on the question whether NIC measurement methods based on benchmarking are beneficial for national policy making and to what extent their application is reasonable in strategic management of nations. Findings reveal NIC benchmarking as beneficial technique within the particular strategic management stages. Strategy development and long term planning are seen as the most relevant among them. However, the real benefits of benchmarking can be captured only if the limitations of this technique are clearly perceived and taken into account.

**Keywords:** National intellectual capital, benchmarking, measurement, strategic management

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# Intangibles in the Internationalization of Family Firms: A Source of Competitive Advantage?

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**Abstract:** Intellectual capital has become a critical resource that can create value as well as sustain a competitive advantage for firms. Something similar happens with intangible resources; in fact both concepts show similarities and in practice are often used interchangeably. In this paper, intellectual capital is considered as a broad concept that comprises human, relational, organizational and technological resources. In the case of family businesses, firms have a specific stock of intangible resources due to the overlap between three different systems: family, business and ownership. This stock of intangible resources can also be a source of competitive advantage when it comes to international expansion. By combining these two aspects, this research paper seeks to identify differences in the human, organizational, relational and technological resources between family and non-family firms, and to analyze whether family firms' stock of intangible resources influences their international strategies. There are various motivations for analyzing these questions. The first lies in the social and economic importance of family firms internationally. The second relates to these companies' need for growth. And third, the particular characteristics of these companies are the source of the differences between their intangible resources and those of nonfamily firms. In our empirical study, we used a quantitative methodology. Our target group was firms -both family and nonfamily- belonging to the Spanish wine and olive oil sectors. Our primary source of information was managers and/or owners of wineries and olive oil factories, who completed an online self-administered questionnaire. We received 418 questionnaires from the respondents, what represented a response rate of 10.7%. Our results show that the stock of intangible resources in terms of human, organizational, relational and technological resources differs between family and nonfamily firms. Moreover, we find that family firms with a better stock of intangible resources show a greater export intensity.

**Keywords:** Family firms, internationalization, resource-based view, intangible resources

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# The Relationships Between Organizational Vision, Intellectual Capital Value and Motivating Managers

**Aleksandra Zalesna**

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**Abstract:** Vision is important to leadership, strategy implementation, change management and good reputation. Effective vision affects organizational performance. However, there are some significant differences in organizational visions (Larwood et al. 1995). In some companies, vision is mutually shared and important for managers. It is action-oriented and long-term. In other companies, vision is general, difficult to describe, and usually it is neither strategic nor formalized. If there are some differences in organizational visions, then there must be some differences in the intellectual capital value of companies. Intellectual capital does not exist without a purpose. It is expected that these differences have their roots in the manner how managers are motivated. Besides, motivation is one of intangible assets. The aim of this paper is to analyze the relationships between an approach to motivating managers and the structure and meaning of organizational vision, and how these relationships influence the company's intellectual capital. It is assumed that vision impacts how managers are motivated. At the same time, it is assumed that vision is the outcome of this process. The aim of this paper is also to propose two theoretical patterns which help to explain these analyzed relationships. The first proposition is that organizational vision is important and shared by managers when they participate in visioning and strategic review process, their team training and development is integrated with the vision as well as their performance (appraisal) and reward (incentives) criteria.

Therefore, managers are cohesive as a team. It is expected that the new vision is well-articulated and effective. It should be positively associated with the company's intellectual capital value. The second proposition is that vision is not shared by all managers because there is no teamwork on it. Top management team is a constellation of senior executives with a minimum of collaboration (Hambrick 1995). Furthermore, training and development of managers are not integrated with the organizational vision neither are their performance and reward criteria. The approach to motivating managers is not coherent. Therefore, the management team is fragmented and organizational vision not inspiring. It is expected then the value of a company's intellectual capital is low. Little is known about the differences in organizational vision with regard to motivating managers. To fill this

gap, two theoretical frameworks are proposed. These can be beneficial for researchers and practitioners.

**Keywords:** Management team, intellectual capital, organizational vision

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# **PhD Research Papers**



# An Input Output Based Methodology to Find the Future Job Trends in Europe

**Fizar Ahmed**

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**Abstract:** Economic growth is a fundamental requirement for the economic development of a country. Long-run economic growth depends almost exclusively on increased productivity and competitiveness where human capital plays its primary role as a factor of production. Increasing volume of goods and services require sufficient and effective exploitation of human capital and other factors as well. Due to economic, technological and environmental changes, demand for skilled human resources varies in quantity over time as some industries rise and other ones fall. Accordingly, human capital is needed to migrate from one sector to another which warrants the requirements for diversified competences. Learning outcomes of different educational programs should adapt these job market needs. This can be enhanced by a system that is capable of predicating these needs continually and discovering their similarities and discrepancies with learning outcomes of relevant programs. The paper presents how Input-Output Model can estimate expected labor force with different skills by processing open data.

**Keywords:** Future job trends, input output model, labour force

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## Are the talented ones committed enough to be retained?

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**Abstract:** In a “new organizational career” era, characterized by the shared responsibility between employees and organization, it is crucial to have more and better internal talent. This implies meeting expectations and needs of both. The purpose is to invest in the development of their skills, resulting in their improved performance, allowing the organizations to have return on it, by boosting its results. To that intent, organizations have to segment their talent pool, promoting organizational learning through it, providing different development plans rather than simple training. In this context, it appears the corporate universities having as core goal align talent development with business goals, helping to create the

conditions for strategic agility and innovation. However these skills development plans need a maturing process, in order to ensure the retention of this talented workforce in the long-term. The main goal is to guarantee that the talent pool is committed to it, wanting to perform even more and even better for a long time. For that, they need to have a psychological relation with the organization, which is a more informal yet stronger contract. Therefore, this paper argues the relation between two main contemporaneous issues in the academies and organizations: talent and organizational commitment. To answer the main research question “are the talented ones committed enough to be retained?” an complementary research question arises “what type of commitment have more influence in the employees retention process?”. In this paper, it is considered the three-component model of organizational commitment – affective, continuance and normative – proposed by Meyer & Allen (1991) and the contextual concept of talent in EDP, the main electricity company in Portugal. It is also presented the skills-development talent programs available in EDP’s corporate university Leadership School, including its eligibility criteria. Thus, in this paper, it is present the concepts and relations mentioned above through an empirical study, using a quantitative method. For that, it was applied a scale that allowed to measure the organizational commitment among the talent pool that are allocated to these EDP’s programs, showing the results of these data collected. Through them it is possible, in a near future, propose some improvements to the Politics, Processes and Practices in which they are based on, achieving their more likely retention. This could increase the proficiency of organizational succession management and could also give new inputs about the best talent development practices, suggesting guidelines for new academic research.

**Keywords:** Talent management, organizational commitment, corporate university, new organizational career, intellectual capital

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## **Transcending Beyond the Organizational Context: Validation of the Individual Market Orientation Construct**

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**Abstract:** Recent years have seen growing interest in the customer knowledge phenomenon, whereby the ‘outside-in’ approach advocates firms to appreciate customers as valuable knowledge resources or intellectual capital. In B2B environment where personalized interactions matter most in influencing customers purchasing behaviour, it is imperative that relationship marketing and knowledge

management co-exists in symbiotic manner. Instead of over-relying on information systems as a single source of capturing explicit customer knowledge, marketers have went to great lengths in extracting tacit customer knowledge from their sales representatives into explicit knowledge that can be utilized firm-wide. These market oriented activities complements the traditional knowledge management practices of deploying firm-specific resources, or also known as the 'inside-out' approach. The market orientation perspective is assumed to be deeply concentrated on the marketer's identification and response to customer needs, which information being communicated are frequently referred as customer intelligence or customer knowledge. Despite various iterations of market orientation construct being tested in different organizational settings, empirical research on market orientation at the individual level has been insufficient. Thus, this research intends to validate the sub-dimensions of the Individual Market Orientation construct by using factor analysis of the adopted I-MARKOR scale. A total of 539 sets of questionnaire were collected from B2B sales representatives from local and foreign banks operating in Kuala Lumpur. Prior to that, the items were content validated by nine academic experts in the field of marketing and workplace behaviour, whereby several items were amended and removed. By using factor analysis on the dimensions of Individual Market Orientation, three factors were extracted (i.e. information acquisition, information dissemination, coordination of strategic response), explaining 62.1% of the variance in the model. These findings demonstrate construct validity of the individual market orientation scales, indicating that the instrument can be reliably used for future research. In terms of practical implications, marketers may use the scale to evaluate their sales representatives' individual market orientation traits to ensure that they have the necessary competencies in treating customer knowledge as collective knowledge rather than individualistic knowledge. Without doubt, such behaviours are mutually beneficial to the firm, its employees and its customers.

**Keywords:** Market orientation, customer knowledge, relationship marketing, B2B marketing, Malaysian banking industry

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# The Business Performance in the Context with Corporate Culture

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**Abstract:** Any top-class company cannot exist and perform well in the absence of its staff, representing the basis of every company. By its staff, the company achieves its objectives and the required performance. The company's performance is the reflection of its staff's performance and may be measured and interpreted by several indicators and affected by several factors. Corporate culture is one of the factors influencing the company's performance. Corporate culture is the component part of the functioning of every business. Through corporate culture, the company forms its staff's working environment and aims at the staff's identification with the preferred company values and ideas. Improvement of the company's performance is closely interlinked with the application of knowledge management tools that facilitate the access to the company's know-how, greater awareness and knowledge of the corporate culture and the gaining of a competitive advantage. Corporate culture is manifested in the staff's conduct, its relationship with other employees and is also a key condition for the introduction of the knowledge management in the company. During the process of introducing the knowledge management, it is necessary to find out which specific culture is prevailing in the company and to take, accordingly, adequate actions pertaining to this process. The article is focused on the company's sustainable performance achieved by forming corporate culture in the selected industrial undertaking. Its aim is to design for the company's sustainable performance in the context in the corporate culture to be instructions as possible in industrial companies increase employee job satisfaction through targeted shaping corporate culture. The company's performance is monitored by means of selected non-financial indicators. These indicators were monitored within a research carried out in a selected industrial undertaking. It is important to remember that a suitable shaping of corporate culture can achieve a change in employee performance, which is ultimately reflected in the performance of the company.

**Keywords:** Performance, corporate culture, employees, sustainability, knowledge management, company

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# Developing a Measure of Intellectual Capital fit: an Approach to Improve Business Processes

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**Abstract:** Accounting standards acknowledge the importance of Intangible Assets in evaluating a Company Value. In this period of turbulent markets, the capacity of a company to resist is strictly connected to its ability to leverage and develop its Intellectual Capital. This article makes a point in the literature about Intangible assets as a strategic asset for companies' development. We will show how the adoption of proper Knowledge Management practices can help the exploitation of the intangible asset as a key competitive factor. Intellectual capital is an asset difficult to measure. However, the intellectual capital is relevant when producing value for an organization. The approach that we have developed at Corvinus University, and we are testing in different business contexts is promising to provide an indication of the real fit of competencies between individuals and the required knowledge necessary to run an organization.

**Keywords:** Knowledge management, intellectual capital, business processes, role fit.

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## Internet Marketing as a Tool of Desirable Corporate Culture

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**Abstract:** Changes which have been running in today's business environment are the consequence of a hyper-competitive environment. In this world only efficient, economical and innovative corporations may be successful. And furthermore, they are ready to use the opportunities of the market. Due to the impact of this environment the necessity of determining the direction in which the organization will be taken and the values that will follow, arises. If the corporate culture may be one of the tools how to maximize the profit, it is important for organizations to have clear vision about its strategic goals that will fit to their corporate identity. All aspects of the corporate culture should follow and support strategic goals.

Therefore, there is effort to bring corporate strategy to every staff member. The scale of values creates a springboard for setting the direction of the company, sets goals and solves the question “how to achieve them”. Progressively oriented businesses realize that even the best strategic goals cannot be realized without the support of people. To attain the condition where all of employees are “envoys” of organizations, there is a corporate culture. Corporate culture is “package” of shared values, standards significantly influencing the working behavior of employees. Basically, the corporate culture reflects the real state of the achieved compatibility, adaptability and consistency of corporate philosophy. The realization of the current state is the starting point for the reaching of the desirable state. One of the tools of desirable corporate culture is internet marketing. Today’s tendency in field of “marketing mix” heads more and more to make use of this form of marketing, because there is necessity for the company to adapt to current trends in international market – where cybernetic space, big data, clouds and many other modern concepts affect every company. Internet marketing includes concept of attracting consumer’s interest, distributing collective information inside and outside of organizations, using of social networks, Pay Per Click, Online Reputation Management, Social Media Marketing and many others. A company that wants to be successful in nowadays market conditions and save corporate’s face should orientate its activity in the direction of digital marketing.

**Keywords:** Supportive corporate culture, internet marketing tools, intellectual capital, cybernetic space, core values, cultural fit tool

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## **The Influence of Organisational Climate in Stimulating Innovative Behaviour Among Human Capital in Malaysian Academic Libraries**

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**Abstract:** In order for organizations to innovate and be successful with the implementation of innovation, they must rely on their human capital to deliver their processes, methods, and operations. This is done through employee engagement in individual innovative behaviour. To obtain innovative behaviour as working outcome from human capital in the organization, the management should provide a variety of organisational climate. Organisational climate can be defined as

the shared perceptions, feelings and attitudes that organisational members have about the fundamental elements of the organisation, which reflect the established norms, values and attitudes of the organisation's culture and influences individuals' behaviour positively or negatively. The main purpose of this paper is to investigate the influence of organisational climate on innovative behaviour of human capital in academic libraries. By using a literature review, purposive sampling, multiple case studies and interviews we discovered the antecedents of organisational climate which are namely: work groups and teams, resources, recognition and rewards, psychological safety and support for risk taking influence academic librarians' innovative behaviour which were evaluated based on idea generation, idea championing and idea implementation. In sum, the conclusions to be drawn from the data analysis are that academic libraries are valuing library's human capital by providing a contributively organizational climate in order encouraging librarians' innovative behaviour. The gap to be closed by further work and development is to correlate the state of comparison between academic libraries in public universities and academic libraries in private sector with similar organizational climate to determine if there are differences in innovative behaviour of human capital within both libraries and to the transcendent value and contribution which these libraries provide to their parent institutions and to broader societal benefit.

**Keywords:** Human capital, innovative behaviour, performance, librarian, organisational climate

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# **Master's Research Papers**



# Empirical Study of Intellectual Capital Influence on the Value of Kazakhstan Organizations

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**Abstract:** this article describes the econometric models of intellectual capital development of the organization on the example of mining industry of the Republic of Kazakhstan. The existing econometric models have already proved that intellectual capital was an important resource of the organization. Creating of empirical models of the intellectual capital influence on the results of the organization's activities is related to the specific econometric analysis, approaches to its measurement and unique features of intellectual capital. Data of the model allow enhancing an effectiveness of intellectual capital management, which further allows studying the factors influencing the increase of profitability and value of the organization.

**Keywords:** Intellectual capital (IC), human capital, organizational capital, consumer capital, the model of intellectual capital, mining industry

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## Intellectual Capital Risk Assessment: a Perspective From Credit Risk Analysts

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**Abstract:** Intellectual capital (IC) of an enterprise refers to the knowledge, skills and experiences of the employees and the values like corporate culture, business processes and customer satisfaction which they create for the enterprise. IC is sometimes known as intangible or knowledge assets as opposed to the much more familiar traditional physical capital and financial capital, which are tangible in nature. Many researchers found that IC would create the majority of corporate values, especially for knowledge-intensive companies, explaining why IC has become the single most important driver of enterprise business growth, sustainabil-

ity, innovation and competitive advantage in our globalized environment. Therefore proper assessment and reporting of these critical though intangible assets are essential in addition to what financial reports received by the business community for years. As there is currently much literature written on IC performance in the field already, this paper focuses instead on the risks such as knowledge loss from poor documentation or resignation of key staff. In particular, how a knowledge of IC risks can enhance the quality of credit risk analysis of financial institutions is also studied, as a poor credit risk management may quickly erode the capital base and accumulated earnings of any bank. In this research, an exploratory test design comprising a literature review and semi-structured interviews with credit risk banking professionals have been developed and adopted. Information is collected on IC risks in general and how and why IC risks can be useful in credit risk analysis of business loan applicants. A conceptual framework is then put forward to identify, analyze and assess the potential IC risks and their impacts, which are important considerations in the value creation process of an enterprise. The relevance of the framework to credit risks analysis is also addressed.

**Keywords:** Intellectual capital risks, intellectual capital, risk management, lenders, credit risk analysis, loan assessment

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## **A Contingency Approach to Investing in Knowledge and Information Management**

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**Abstract:** Over recent decades, many organizations have used strategic performance management systems such as Balanced Scorecard to manage intellectual property such as Knowledge and information as well as the financial objectives. Accordingly, whether establishment of such systems can assure companies about knowledge management effectiveness, or still requires a focus on specific separate initiatives simultaneously, moreover managers and investors need guidelines for effective investments. In this research, previous researches on intellectual capital, knowledge management key areas as the particular KM initiatives and knowledge management effectiveness are reviewed and measurement indicators are extracted. Required information is initially gathered using a questionnaire of containing 67 questions in the reputable software Company. Exploratory and confirmatory factor analysis and structural equation modeling (SEM) techniques are

applied to assess indicators and measure relationships between research constructs. Final results will show the significant relationships and effects strength of research constructs on each other, moreover a broad list of valid indicators and initiatives are proposed for all constructs. Using those, a number of suggestions are offered for improvement of the concepts under investigation which enable company to invest directly on effective KM and intellectual capital initiatives. There are a lot of tools, approaches and initiatives in organization literature for managing intellectual capital. This paper helps decision makers are not confused and provides a reliable guide for organizations which have limited resources, to invest purposefully and define effective initiatives in KM and intellectual capital.

**Keywords:** Knowledge management effectiveness, intellectual capital, structural equation modeling, exploratory factor analysis, balanced scorecard

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# **Work In Progress Paper**



# Impact of Human Capital and Spatial Concentration on Enterprise Productivity in Russia

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**Abstract:** We analyze how human capital and spatial concentration affect enterprise productivity, based on Russian firm level data for the period 1999–2008 provided by SPARK-Interfax. This data is augmented with regional characteristics obtained from Russian Federal State Statistics Service (Rosstat) and with investment risk index of the Analytical center ‘Expert’. To observe the effect of human capital on enterprise productivity, wage is chosen as a proxy of human capital quality. Human capital is also associated with agglomeration levels, i.e. concentration of economic activity in cities and regions. Indeed, from the enterprise point of view, agglomeration of economic activities leads to better matching on the labour market, input sharing and knowledge spillovers. Agglomeration levels are subdivided into localization and diversity (urbanization) levels. We control for regional business climate and transport infrastructure, and take into account specific features of different types of firms. Panel data allows us to deal with endogeneity biases using fixed effects. These biases occur for two major reasons: unobserved heterogeneity, when unobserved factors affect both enterprise revenue and explanatory variables, and simultaneity that arises due to productivity shocks, or if firms choose their location considering potential benefits or losses from agglomeration, for example. Our results show that the effect of average regional wage on enterprise productivity is positive. Besides, we find that Russian firms benefit from localization and diversity economies in cities, as well as from home market potential, and that these benefits vary across types of firms. In line with intuition, business risk is found to produce negative effect on enterprise performance. The results emphasize importance of economic policy aimed at development of human capital; results also show that if a sufficiently large number of firms work in a city, performance of each firm improves.

**Keywords:** Enterprise productivity, human capital, agglomeration economies, cities, regions, Russia

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# **Abstracts Only**



# Clearing House for Knowledge Options - Creating a Marketplace for Knowledge

**Philippe Leliaert**

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**Abstract:** Knowledge and technology intensive (KTI) industries contribute >€15 trillion to the world economy. Yet there are no markets for knowledge itself, because there exist no common methods for valuing and therefore pricing knowledge. Instead, producers of knowledge, incl. experts and employees, sell their time at a fixed rate reflecting education and experience, but irrespective of value to their customers. Knowliah's Clearing House for Knowledge Options (CHoKO) fundamentally changes the way knowledge is valued and priced: CHoKO is an online platform tracking both production and use of knowledge, whose value is determined not at the point of exchange but at the point of (re)use; and producers get royalties in proportion to that value. This mirrors the role of Performance Rights Organisations (PROs) in the entertainment sector, who collect royalties from TV and music stations and distribute these to authors according to the playlists, i.e. actual use. Our ambition is for CHoKO to disrupt the traditional ways (i) for SME's to sell (and buy) their knowledge, (ii) to remunerate knowledge workers, artists, and social-profit workers, (iii) to value the knowledge equity of companies incl. start-ups, (iv) to manage intellectual property rights, and (v) to mitigate 'brain drain'. The feasibility study assesses the project's viability: research and validate the legal foundations (with regard to privacy, data protection, and copyrights) for operating trans-nationally; and assess, during a 6-month live pilot, factors that affect the rate and speed of adoption towards reaching critical mass among target communities. Why is your paper of interest to the conference participants? Use this space to persuade the reviewers why they should select this abstract for the conference :: There still is no generally accepted method for measuring the value of an organisation's intellectual capital. Transaction-based approaches fail because the value of IC assets depends on the context in which they are used. CHoKO monitors both contribution and use of knowledge and determines price according to actual value.

**Keywords:** Knowledge options, valuation, price, royalties, disruption

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# CEO Appointment in Crisis: Does a Stock Market Recognize Personal Human Capital?

**Ilulia Naidenova and Marina Zavertiaeva**

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**Abstract:** Economic crisis leads to high risks for particular companies, but at the same time, these extraordinary circumstances give great opportunities. Chief executive officer (CEO) plays a crucial role in decision making process and choosing company's strategy. However managing a company in the period of a stable economy is different from doing that in a crisis. The aim of this paper is to estimate stock market reaction to CEOs appointments during the crisis period and to determine main personal characteristics of CEOs that influence this reaction. Previous empirical research found out that there is positive stock market reaction to appointment of CEO, directors or other managers and the strength of the reaction depends on personal characteristics of appointed senior executive (Clayton et al., 2005; Ferris et al., 2011; Yilmaz, Mazzeo, 2014; Rossi, Cebula, 2015). However, all these papers do not distinguish crisis period or analyze only stable economy period. Guevara and Bonfour (2011) argue that managers make decisions faster during the economic crisis and recessions. We consider CEOs skills and knowledge as his/her personal human capital following Tome et al. (2014). The methodology of the paper includes two steps. Firstly, using event study methodology we estimate abnormal returns related to the appointments of new CEOs. Secondly, we regress abnormal returns on CEOs personal characteristics to estimate which characteristics stock market investors appreciate more. CEOs appointments are tested in large listed companies that operate in United Kingdom, Germany, France, Switzerland, Italy, Spain and Netherlands. We analyze companies with more than 250 employees and 1000 thousands euros of assets and chosen those that changed their CEOs during the crisis period. Company should also have ordinary shares that are actively traded. The final sample of companies that meets all the requirements consists of almost 200 companies. The dataset includes financial data, particularly daily stock returns, company's size, financial leverage, profitability, tangibility. As proxy indicators of personal human capital it is proposed to analyze education and experience of CEOs. We make more profound analysis of these personal traits and take into account the number of educations and countries of getting degrees, education specialization, CEOs tenure in company and industry. We suppose to prove the suggestion about the significant positive stock market reaction to the appointment of a new CEO on average. We also believe that personal human capital of appointed CEOs is of high significance for market investors. Probably they regard previous experience of a manager as more important factor than his/her education. The current research contributes to the solution of

problem whether or not firm should hire new managers during the crisis and which characteristics those managers should have. It also allows to understand the perception of individual human capital of CEOs by market investors.

**Keywords:** CEO appointment, crisis, event study, individual human capital, personal characteristics, empirical research

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## **In Search of an Intellectual Capital Comprehensive Theory: An updated approach**

**Jose Maria Viedma Marti**

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**Abstract:** The development of intellectual capital theory has been guided by the ideas and thoughts of a handful of influential practitioners, including Karl Erik Sveiby (1997), RS Kaplan (Kaplan and Norton, 1992) and Leif Edvinson (Edvinson and Malone, 1997). These pioneers established the basis of the “intellectual capital standard theory”. In the present paper the assumptions and principles that support the standard theory (the prevailing paradigm) are discussed. The paper then introduces other models and methodologies as alternatives to the standard theory—such as the “Value Explorer” (Andriessen and Tissen, 2000) and the “Intellectual Capital Benchmarking System (ICBS)” (Viedma, 2001)—and examines the foundations and principles on which the alternative new theory (the ‘new paradigm’) is based. Finally, the paper attempts to synthesise both of these theoretical approaches with other new views and contributions, and tries to develop the basis for a first general theory of intellectual capital. Why is your paper of interest to the conference participants? Use this space to persuade the reviewers why they should select this abstract for the conference. This paper is an updated version of the paper entitled "In search of an Intellectual Capital Comprehensive Theory" that was published in EJKM.

**Keywords:** Intellectual capital; knowledge management; strategic management; models; paradigms; theory

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# **Paper Citations**



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