Proceedings
of the
7th European Conference on
Innovation and Entrepreneurship

Escola Superior de Gestão
e Tecnologia
Instituto Politécnico de Santarém
Portugal

20-21 September 2012

Edited by
Dr. Carla Vivas and Dr. Fernando Lucas
School of Management and Technology
Polytechnic Institute of Santarém
Portugal
## Contents

<table>
<thead>
<tr>
<th>Paper Title</th>
<th>Author(s)</th>
<th>Guide Page</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td></td>
<td>xiv</td>
<td>vii</td>
</tr>
<tr>
<td>Conference Committee</td>
<td></td>
<td>xv</td>
<td>viii</td>
</tr>
<tr>
<td>Biographies</td>
<td></td>
<td>xx</td>
<td>x</td>
</tr>
<tr>
<td>Modelling the Style in Entrepreneurial Learning From Experience</td>
<td>Ioannis Akritidis and Alexandros Kakouris</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Service Design Systems Driven Innovation Approach for Total Innovation Management</td>
<td>Mohammed AlSudairi and TGK Vasista</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>A Resource-Based View Model in Achieving Entrepreneurial Innovation for Canadian Universities</td>
<td>Christos Apostolakis, José Carlos Rodríguez and Mario Gómez</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>Certifying Innovation: A Proposal for a Standard With Innovation Management System</td>
<td>Anna Arnò, Stefano De Falco and Guglielmo Trupiano</td>
<td>4</td>
<td>26</td>
</tr>
<tr>
<td>The Main Drivers of Financial Innovations: Evidence From the Global Crisis</td>
<td>Claudia Gabriela Baicu, Olimpia State and Mariana Iatagan</td>
<td>5</td>
<td>34</td>
</tr>
<tr>
<td>Evaluation and Adoption of University Technologies by Enterprises</td>
<td>Fernando Barbosa and Fernando Romero</td>
<td>6</td>
<td>41</td>
</tr>
<tr>
<td>Voice Behaviour – Intrapreneurship in Sheep’s Clothing?</td>
<td>Maria de Lurdes Calisto and Soumodip Sarkar</td>
<td>7</td>
<td>49</td>
</tr>
<tr>
<td>Innovation and Internationalization of IT Companies – Comparative Case Studies in Brazil and Portugal</td>
<td>Luisa Carvalho, Teresa Costa and Simone Galina</td>
<td>9</td>
<td>57</td>
</tr>
<tr>
<td>Paper Title</td>
<td>Author(s)</td>
<td>Guide Page</td>
<td>Page No.</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Enterprise Potential of Portuguese Students Fostered by an Entrepreneurship Education Program</td>
<td>Maria Isabel Carvalho, Jorge Simões, António Samagaio and Eduardo Couto</td>
<td>10</td>
<td>68</td>
</tr>
<tr>
<td>Entrepreneurship’s Contribution to the Local Economic Development of Romania’s North-West Development Region through trade</td>
<td>Adina Catana and Lavinia Delcea</td>
<td>11</td>
<td>79</td>
</tr>
<tr>
<td>The use of Multi-Criteria Analysis to Evaluate Innovative Solutions</td>
<td>Piotr Chwastyk</td>
<td>12</td>
<td>90</td>
</tr>
<tr>
<td>Barriers to Innovation Amongst Small and Medium-Sized Enterprises (SMEs) in Portugal</td>
<td>Ana Cordeiro and Filipa Vieira</td>
<td>13</td>
<td>97</td>
</tr>
<tr>
<td>Portuguese Social Stock Exchange – Assessment of Sustainability</td>
<td>Teresa Costa and Luísa Carvalho</td>
<td>14</td>
<td>105</td>
</tr>
<tr>
<td>Does it Make Sense to go Against &quot;Shadow Entrepreneurs&quot;?</td>
<td>Oscar Cristi, José Ernesto Amorós and Juan Pablo Couyoumdjian</td>
<td>15</td>
<td>116</td>
</tr>
<tr>
<td>Calibrating High Performance in the Ambitious SMEs Using Entrepreneurial Assumptions</td>
<td>Pat Daly and James Walsh</td>
<td>16</td>
<td>125</td>
</tr>
<tr>
<td>The Influence of a ‘Learning-by-Doing’ Program on Entrepreneurial Perceptions of Economics Students</td>
<td>Luc De Grez and Dirk Van Lindt</td>
<td>17</td>
<td>133</td>
</tr>
<tr>
<td>Nanotechnologies and Eco-Innovation: Creating a Regulatory Framework for Sustainable Markets</td>
<td>Aurelie Delemarle and Claire Auplat</td>
<td>18</td>
<td>140</td>
</tr>
<tr>
<td>Paper Title</td>
<td>Author(s)</td>
<td>Guide Page</td>
<td>Page No.</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>The Management of Waste and Sustainable Development as Eco-Innovation and Source of Performance</td>
<td>Carine Deslee</td>
<td>19</td>
<td>149</td>
</tr>
<tr>
<td>Motivations and Attitudes Towards Female Entrepreneurship: An Empirical Study in Western Romania</td>
<td>Anca Dodescu, Alina Bădulescu, Adriana Borza and Tomina Săveanu</td>
<td>20</td>
<td>158</td>
</tr>
<tr>
<td>Fostering SMEs and Innovation: Challenges for Romanian Regional Growth and Development Policy</td>
<td>Anca Dodescu</td>
<td>22</td>
<td>166</td>
</tr>
<tr>
<td>Entrepreneurial Capital: The Experience of Black African Migrant Women in Britain</td>
<td>Thomas Domboka</td>
<td>23</td>
<td>174</td>
</tr>
<tr>
<td>Entrepreneurship Against Unemployment: The Lived Experiences of Immigrant Entrepreneurs in Four Countries</td>
<td>Carolyn Downs Lambros Lazura and Panayiotis Ketikidis</td>
<td>24</td>
<td>183</td>
</tr>
<tr>
<td>Fostering Creativity and Innovation: Spheres of Interaction Influence Chance Encounters</td>
<td>Claudia Erni Baumann, Frank Zoller and Roman Boutellier</td>
<td>25</td>
<td>190</td>
</tr>
<tr>
<td>Entrepreneurial Attitudes and Perceptions in a Cross-Country Setting: Evidence From GEM Data</td>
<td>Paula Odete Fernandes, João Ferreira and Cristina Fernandes</td>
<td>26</td>
<td>198</td>
</tr>
<tr>
<td>Potentialities of Public eProcurement as a Tool to Leverage the Policy of Innovation</td>
<td>Isabel Ferreira and Luís Alfredo Amaral</td>
<td>27</td>
<td>208</td>
</tr>
<tr>
<td>Paper Title</td>
<td>Author(s)</td>
<td>Guide Page</td>
<td>Page No.</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Innovation of Decentralised Power Production: The Sustainability of Micro-Cogeneration for the Portuguese Market</td>
<td>Ana Ferreira, Manuel Nunes, Luís Martins and Senhorinha Teixeira</td>
<td>29</td>
<td>217</td>
</tr>
<tr>
<td>The Influence of Innovative Capacity on Firms Performance: Evidence from Portuguese and Spanish</td>
<td>João Ferreira, Mário Raposo and Cristina Fernandes</td>
<td>30</td>
<td>226</td>
</tr>
<tr>
<td>Integrated Product Development in a Multisite PLM Platform</td>
<td>Stelian-Cornel Florica and George Draghici</td>
<td>31</td>
<td>235</td>
</tr>
<tr>
<td>Engaging Communities of Lead Users With Technology: Findings From a European eParticipation Project</td>
<td>Brendan Galbraith, Brian Cleland, Suzanne Martin Jonathan Wallace and Maurice Mulvenna</td>
<td>32</td>
<td>245</td>
</tr>
<tr>
<td>Where are They now? A Entrepreneurship Education Follow-Up</td>
<td>Laura Galloway, Isla Kapasi and Geoff Whittam</td>
<td>33</td>
<td>252</td>
</tr>
<tr>
<td>Finding Risk Factors of Innovation Activity Enterprises</td>
<td>Oleg Golichenko and Svetlana Samovoleva</td>
<td>33</td>
<td>261</td>
</tr>
<tr>
<td>Entrepreneurship and Innovation in Creative and Cultural Industries</td>
<td>Elissaveta Gourova, Ivan Draganov and Kostadinka Toteva</td>
<td>34</td>
<td>271</td>
</tr>
<tr>
<td>Could the Leadership Range of the Entrepreneur Help the Small Firm’s Innovation Performance Through the Employees’ Organizational Commitment?: Empirical Evidence and Gaps From the Literature</td>
<td>Izold Guihur and Gilles Marcoux</td>
<td>35</td>
<td>281</td>
</tr>
<tr>
<td>Paper Title</td>
<td>Author(s)</td>
<td>Guide Page</td>
<td>Page No.</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>University-Industry Collaboration: Do the Characteristics of Academic Staff Matter?</td>
<td>Heiko Haase, Mário Franco and António Fernandes</td>
<td>37</td>
<td>289</td>
</tr>
<tr>
<td>Competition Between Business Ecosystems: A Case Study of the Mobile Phone Industry</td>
<td>Takashi Hirao and Yusuke Hoshino</td>
<td>38</td>
<td>297</td>
</tr>
<tr>
<td>Networks of Growth: The Case of Young Innovative Companies in Finland</td>
<td>Jukka Huhtamäki, Kaisa Stilt Minna Isomursu, Martha Russell and Neil Rubens</td>
<td>39</td>
<td>307</td>
</tr>
<tr>
<td>Spin-Off Performance: Entrepreneurial Capabilities and Social Networks of the Founders in the Creation Period</td>
<td>Thanh Huynh, Daniel Aranda and Luis Molina-Fernández</td>
<td>39</td>
<td>316</td>
</tr>
<tr>
<td>An Agile Approach for Measuring the Performance of a Marketing System</td>
<td>Monica Izvercianu and Cella-Flavia Buciuman</td>
<td>40</td>
<td>324</td>
</tr>
<tr>
<td>Prosumer Involvement in Innovation Strategies – the Prosumer Creativity and Focus Paradigm</td>
<td>Monica Izvercianu and Sabina Şeran</td>
<td>41</td>
<td>332</td>
</tr>
<tr>
<td>Competitive Advantage for Early Stage Entrepreneurs: The Case of Lebanon</td>
<td>Maroun Jneid and Antoine Tannous</td>
<td>42</td>
<td>340</td>
</tr>
<tr>
<td>The Role of Planning In Innovation Success: Experience of Leading Polish Enterprises</td>
<td>Magdalena Jurczyk – Bunkowska</td>
<td>44</td>
<td>349</td>
</tr>
<tr>
<td>Ontologies Enable Innovation</td>
<td>Jussi Kantola and Hannu Vanharanta</td>
<td>45</td>
<td>358</td>
</tr>
<tr>
<td>Paper Title</td>
<td>Author(s)</td>
<td>Guide Page</td>
<td>Page No.</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Fusing Technology, Innovation and Entrepreneurship Into Post-graduate Education</td>
<td>Panayiotis Ketikidis, Anna Sotiriadou, Thanos Hatzipostolou, Petros Kefalas and Adrian Solomon</td>
<td>45</td>
<td>366</td>
</tr>
<tr>
<td>Developing Øresund Region’s Innovation System With Clean Technology Entrepreneurship</td>
<td>Peter Kiryushin, Bala Mulloth and Tatiana Iakovleva</td>
<td>46</td>
<td>376</td>
</tr>
<tr>
<td>At the Intersection of Dynamic Capabilities and Organizational Learning: Organizational Learning Capability as a Determinant of Innovation and Performance</td>
<td>İpek Koçoğlu; Salih Zeki İmamoğlu and Hüseyin İnce</td>
<td>48</td>
<td>384</td>
</tr>
<tr>
<td>The Significance of the LGBT-Community for Homosexual Entrepreneurs – Influencing Factors and Consequences</td>
<td>Thomas Köllen, Regine Bendl and Sabine Steinbacher</td>
<td>49</td>
<td>394</td>
</tr>
<tr>
<td>Crowdinvesting, an Innovative Option for Start-up Financing?</td>
<td>Hanno Kortleben and Bernhard Vollmar</td>
<td>50</td>
<td>404</td>
</tr>
<tr>
<td>Entrepreneurial Learning for Quality and Innovation – a Study in the Wellness Industry</td>
<td>Yvonne Lagrosen and Stefan Lagrosen</td>
<td>51</td>
<td>413</td>
</tr>
<tr>
<td>Innovation and Entrepreneurship Studies: One or two Fields of Research?</td>
<td>Hans Landström, Gouya Harirchi and Fredrik Åström</td>
<td>52</td>
<td>420</td>
</tr>
<tr>
<td>Exploring Regulatory Focus, Entrepreneurial Intention, Self-Efficacy and Entrepreneurial Skills Among Malaysian Higher Learning Institution Students</td>
<td>Zaidatol Akmaliah Lope Pihie, Afsaneh Bagheri and Zaidatol Haslinda Abdullah Sani</td>
<td>53</td>
<td>430</td>
</tr>
<tr>
<td>The Size of an Enterprise and Enhancing Innovation Potential</td>
<td>Ladislav Ludvík and Jindra Peterková</td>
<td>54</td>
<td>438</td>
</tr>
<tr>
<td>Paper Title</td>
<td>Author(s)</td>
<td>Guide Page</td>
<td>Page No.</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Innovation as Value key in Enterprises: The Spanish Case</td>
<td>Maria Jesus Luengo and Maria Obeso</td>
<td>55</td>
<td>447</td>
</tr>
<tr>
<td>Women Entrepreneurs: Profile, Business Motivation and Success Measures in Urban and Rural context</td>
<td>Carla Susana Marques, Gina Marques Carvalho Santos and João Ferreira</td>
<td>56</td>
<td>456</td>
</tr>
<tr>
<td>Logistic Aspects Having Influence on Shopping Behaviour of Online Customers Within eCommerce and Cyber Entrepreneurship</td>
<td>Veronika Mašínová</td>
<td>59</td>
<td>476</td>
</tr>
<tr>
<td>Analysing Nascent Entrepreneurs’ Behaviour Through Intention-Based Models</td>
<td>Francesc Miralles, Carla Riverola and Ferran Giones</td>
<td>60</td>
<td>482</td>
</tr>
<tr>
<td>Design as a Strategic Resource: Results From a Portuguese Online Questionnaire</td>
<td>José Monteiro-Barata</td>
<td>61</td>
<td>492</td>
</tr>
<tr>
<td>Clustering Entrepreneurship Aspirations: Innovation, Growth and International Orientation of Activities</td>
<td>Alcina Nunes and Carlos Balsa</td>
<td>62</td>
<td>502</td>
</tr>
<tr>
<td>Cooperation for innovation: Evidences From Southern Europe Countries</td>
<td>Sandra Nunes, Luísa Carvalho and Teresa Costa</td>
<td>63</td>
<td>211</td>
</tr>
<tr>
<td>Creativity: An Application to the Metropolitan Area of Porto</td>
<td>Carla Oliveira, Sandra Silva and Isabel Mota</td>
<td>64</td>
<td>521</td>
</tr>
<tr>
<td>Paper Title</td>
<td>Author(s)</td>
<td>Guide Page</td>
<td>Page No.</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>SPIN-UP – Creating an Entrepreneurship Coaching and Training Program for University Spin-Offs</td>
<td>Manuel Oliveira, João Ferreira, Alexandra Xavier, José de Sousa, Gonçalo Meireles, Milton Sousa, Dariusz Tzmrielak, Sanna Tomperi, Pekka Salmi, Marko Torkkeli, Arthur Tolsma, Qing Ye and Marina van Geenhuizen</td>
<td>65</td>
<td>530</td>
</tr>
<tr>
<td>Measuring Eco-Innovation and Corporate Sustainability Performance: Examples from Romania</td>
<td>Dorel Mihai Paraschiv, Estera Laura Nemoianu, Claudia Adriana Langă and Roxana Voicu-Dorobanţu</td>
<td>66</td>
<td>539</td>
</tr>
<tr>
<td>The Innovation Potential of Social Enterprises</td>
<td>Ruslan Pavlov</td>
<td>68</td>
<td>548</td>
</tr>
<tr>
<td>Cultural Change Through Lean and Learning Mechanisms to Improve Organisational Performance in the Construction Sector</td>
<td>Tiago Pinho, Ângela Silva, Cristina Rodrigues and António Amaral</td>
<td>68</td>
<td>554</td>
</tr>
<tr>
<td>Dynamics of Innovation, Contributions to Differentiation: Analysis of Innovation Strategies Vinibrasil of the Emerging Cluster of Winemaking in the Valley of San Francisco (Brazil)</td>
<td>Valdner Ramos, Deranor Oliveira and Valdenor Clementino</td>
<td>69</td>
<td>562</td>
</tr>
<tr>
<td>Financial Literacy of University Students</td>
<td>Cristina Rodrigues, Filipa Vieira, António Amaral and Vitorino Martins</td>
<td>70</td>
<td>572</td>
</tr>
<tr>
<td>Social Networks and Innovation Strategies in Knowledge-Intensive Services: The Case of Software</td>
<td>Isabel Salavisa and Cristina Sousa</td>
<td>71</td>
<td>581</td>
</tr>
<tr>
<td>Paper Title</td>
<td>Author(s)</td>
<td>Guide Page</td>
<td>Page No.</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>------------------------------------------------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>The Influence of the Global Crisis on Small Firms Active in the Romanian Pharma Industry. Lessons Learnt About Entrepreneurship and Management Education</td>
<td>Cezar Scarlat</td>
<td>73</td>
<td>591</td>
</tr>
<tr>
<td>Branding: Improving the Innovative Capacity of Greenhouse Horticulture SMEs</td>
<td>Henk Schout and Pepijn van Willigenburg</td>
<td>74</td>
<td>600</td>
</tr>
<tr>
<td>Impact of Innovations on Occupancy Rate of Hotels: A Comparative Study of the Intrapreneurial Perspective</td>
<td>Krishna Shetty and Ramamithram Gopal</td>
<td>75</td>
<td>608</td>
</tr>
<tr>
<td>Creating Entrepreneurial Activity: Russian University Case Study</td>
<td>Dmitriy Shishkin and Natalia Molodchik</td>
<td>76</td>
<td>616</td>
</tr>
<tr>
<td>Crowdsourcing Innovation: A Strategy to Leverage Enterprise Innovation</td>
<td>Cândida Silva and Isabel Ramos</td>
<td>77</td>
<td>624</td>
</tr>
<tr>
<td>Innovative Competencies of Leading in a Complex World</td>
<td>Aelita Skaržauskienė and Steponas Jonušauskas</td>
<td>78</td>
<td>631</td>
</tr>
<tr>
<td>Determinants and/or Barriers to the Adoption and Diffusion of Paper Transistors in Portuguese Industry</td>
<td>Joana Sousa, Aurora Teixeira and Sandra Silva</td>
<td>80</td>
<td>641</td>
</tr>
<tr>
<td>Innovation Driven SMEs in Romania: Targets and Challenges in a (Post) Crisis Period</td>
<td>Zsuzsanna Szabó</td>
<td>81</td>
<td>650</td>
</tr>
<tr>
<td>Business and Technology Lifecycles and Adoption of the Entrepreneurial Strategy in SMEs</td>
<td>Kambiz Talebi, Gholamreza Dashtimanesh and Reza Hajiani</td>
<td>82</td>
<td>661</td>
</tr>
<tr>
<td>Paper Title</td>
<td>Author(s)</td>
<td>Guide Page</td>
<td>Page No.</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Volume-Based R&amp;D tax Credits and Behavioural Additionality in YICs</td>
<td>Peter Teirlinck, Daniel Neicu, and André Spithoven</td>
<td>83</td>
<td>672</td>
</tr>
<tr>
<td>Implementation Characteristics of Green Entrepreneurship in the Greek Furniture Sector</td>
<td>Marios Trigkas, Ioannis Papadopoulos, and Glykeria Karagouni</td>
<td>84</td>
<td>680</td>
</tr>
<tr>
<td>A Case Study on the Relationship Between Disasters and Innovation</td>
<td>Jiro Usugami and Hirofumi Abe</td>
<td>85</td>
<td>689</td>
</tr>
<tr>
<td>Inter-Firm Alliances: A Mechanism to Develop Innovative Capacity in Portuguese SMEs</td>
<td>Luís Valentim, Mário Franco, and João Lisboa</td>
<td>86</td>
<td>695</td>
</tr>
<tr>
<td>Fight – Impact – Decrease – Climate Change</td>
<td>Hannu Vanharanta, Jussi Kantola, Markku Salo, and Pawel Krolas</td>
<td>87</td>
<td>703</td>
</tr>
<tr>
<td>Entrepreneurial Intentions of Engineering Students</td>
<td>Filipa Vieira and Cristina Rodrigues</td>
<td>87</td>
<td>712</td>
</tr>
<tr>
<td>Institutions: How Relevant for Interactions in an Emerging Regional Innovation System?</td>
<td>Marcia Villasana and Danilo Chavez</td>
<td>88</td>
<td>721</td>
</tr>
<tr>
<td>Social Networks use for Geographical Expansion in Rural and Urban Small Firms</td>
<td>Cathie Wright, John Sanders, Laura Galloway, and Jo Bensemmenn</td>
<td>89</td>
<td>730</td>
</tr>
<tr>
<td>Assessing the Impact of Transformational Leadership, Market and Learning Orientations on Entrepreneurship and Innovation: A Neural Network Topology</td>
<td>Afonso Zinga, Arnaldo Coelho, Maria Silva, and Fernando Carvalho¹</td>
<td>90</td>
<td>738</td>
</tr>
<tr>
<td>PHD Papers</td>
<td>Authors</td>
<td>Volume</td>
<td>Page</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td>Entrepreneurial Leadership Learning: The Critical Role of Involvement</td>
<td>Afsaneh Bagheri and Zaidatol Akmaliah Lope Pihie</td>
<td>93</td>
<td>751</td>
</tr>
<tr>
<td>Development and Economic Growth Contribution of Migrant Workers and Entrepreneurs</td>
<td>Ileana Ciutacu</td>
<td>94</td>
<td>759</td>
</tr>
<tr>
<td>Analysis of Consumer Profiles in the Presence of a Disruptive Innovation</td>
<td>Biagio Di Franco and Monica Izvercianu</td>
<td>95</td>
<td>769</td>
</tr>
<tr>
<td>A Theoretical Contribution: Web 2.0 and Entrepreneurial Corporate Culture Linked to Radical Innovation</td>
<td>Diane Duparc</td>
<td>96</td>
<td>778</td>
</tr>
<tr>
<td>Entrepreneurial Innovation: An Empirical Investigation in the Sri Lankan Rubber Industry</td>
<td>Shyamalie Ekanayake and Dhammika Abeysinghe</td>
<td>97</td>
<td>787</td>
</tr>
<tr>
<td>The Effect of Crowdfunding on the Resource Assembly Process During and After Venture Formation</td>
<td>Denis Frydrych, Adam Bock and Tony Kinder</td>
<td>98</td>
<td>797</td>
</tr>
<tr>
<td>Entrepreneurship and SMEs Through Business Incubators in the Arab World (Case Study of Jordan)</td>
<td>Emhamad Hamad and Leslie Arthur</td>
<td>99</td>
<td>801</td>
</tr>
<tr>
<td>Dynamic and Autotelic Capabilities in Knowledge-Intensive, Low-Tech Ventures</td>
<td>Glykeria Karagouni, Aimilia Protogerou and Yannis Caloghirou</td>
<td>100</td>
<td>810</td>
</tr>
<tr>
<td>The Measurability of the Impact of Corporate Social Responsibility on Business Performance</td>
<td>Malte Kaufmann and Marieta Olaru</td>
<td>101</td>
<td>818</td>
</tr>
<tr>
<td>Places for SMEs to Cooperate in Innovation in the Basque Country</td>
<td>Maria Jesus Luengo' Maria Ángeles Intxausti and Iñaki Periañezn</td>
<td>101</td>
<td>827</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Pages</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Integrating Innovation Indicators in the GPE Model for Automobile Performance Assessment</td>
<td>Cristina Moisa, Marieta Olaru and Ionela Carmen (Rizea) Pirnea</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>Non-Technological Innovation: Current Issues and Perspectives</td>
<td>Cristina Pereira and Fernando Romero</td>
<td>104</td>
<td></td>
</tr>
<tr>
<td>Emerging Challenges for Entrepreneurship and SMEs in the Context of Knowledge Capitalism and Glocalization</td>
<td>Adalberto Rangone</td>
<td>105</td>
<td></td>
</tr>
<tr>
<td>What Ingredients Define a Successful Small Business – A Review of the Literature</td>
<td>Ted Sarmiento</td>
<td>106</td>
<td></td>
</tr>
<tr>
<td>An Explanation for the Adoption of Industrialised Building Construction in Malaysia: System Functions</td>
<td>Saiful Azri Abu Hasan Sazalli, David Greenwood, David Morton and Brian Agnew</td>
<td>107</td>
<td></td>
</tr>
<tr>
<td>Self-Efficacy of Students Attending Higher Education Institutions</td>
<td>Dina Teixeira, Jorge Simões and Maria José Madeira Silva</td>
<td>108</td>
<td></td>
</tr>
<tr>
<td>WIP Papers</td>
<td></td>
<td>109</td>
<td></td>
</tr>
<tr>
<td>The Case of Fifth Generation Virtual Assistants</td>
<td>Francisco Gonzalez-Bree, David Cembrero and David Ruiz de Olano</td>
<td>111</td>
<td></td>
</tr>
<tr>
<td>Innovation and Regional Economic Growth in European Countries</td>
<td>Corina Grigore, Georgeta Grigore and Constantin Draghici</td>
<td>111</td>
<td></td>
</tr>
<tr>
<td>The Impact of the Expansion of Chain Stores on the Local Producers – A Case Study of Bihor County, Romania</td>
<td>Ioana Pop Cohu, and Adina Catana</td>
<td>112</td>
<td></td>
</tr>
<tr>
<td>Women entrepreneurs in Western Romania: a business profile</td>
<td>Anca Dodescu, Alina Badulescu, Ioana Pop Cohut,</td>
<td>113</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abstracts only</td>
<td>115</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td>--------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Competences in the Entrepreneurial Activity of Romanian Women of Western Romania</td>
<td>117</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Management Behaviour: The Case of Growth-Oriented SMEs in Atlantic Canada</td>
<td>118</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farmers' Markets and Female Entrepreneurship; A Community Launching-Pad for low Risk Ventures</td>
<td>118</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exploring Innovative Data Collection Tools in Social Sciences Research</td>
<td>119</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Preface

These proceedings represent the work of contributors to the 7th European Conference on Entrepreneurship and Innovation (ECIE 2012), hosted this year by Escola Superior de Gestão e Tecnologia, Instituto Politécnico de Santarém, Portugal. The Conference Chair is Professor Ilídio Tomás Lopes and the Programme Co-Chairs are Dr. Carla Vivas and Dr. Fernando Lucas, all from the School of Management and Technology, Polytechnic Institute of Santarém, Portugal.

The opening keynote is given by Professor Dr Soumodip Sarkar from the University of Évora, Portugal on the topic “Innovation and its Dynamics - An Integrated Model”. The second day will be opened with a keynote from Dr Heather Fulford from the Robert Gordon University, Scotland. Heather will address “The Entrepreneurship Classroom: A meeting of minds and hearts?”

ECIE continues to develop and evolve. Now in its 7th year the key aim remains the opportunity for participants to share ideas and meet the people who hold them. The scope of papers will ensure an interesting two days. The subjects covered by the papers illustrate the wide range of topics that fall into this important and growing area of research.

With an initial submission of 221 abstracts, after the double blind, peer review process there are 85 academic papers, x16 PhD papers and 3 work-in-progress papers published in these Conference Proceedings. These papers represent research from Austria, Belgium, Bulgaria, Canada, Chile, Colombia, Czech Republic, Finland, France, Germany, Greece, India, Iran, Ireland, Italy, Japan, Lebanon, Lithuania, Malaysia, Mexico, New Zealand, Poland, Portugal, Romania, Russia, Saudi Arabia, Slovenia, Spain, Sri Lanka, Sweden, Switzerland, The Netherlands, Tunisia, Turkey and the UK.

I hope that you enjoy reading these Proceedings.

Dr. Carla Vivas and Dr. Fernando Lucas
Co-Programme Chairs
Professor Ilídio Tomás Lopes
Conference Chair
September 2012
Conference Committee

Conference Executive
Professor Alistair Anderson, Robert Gordon University, Aberdeen, UK  
Dr Heather Fulford, Robert Gordon University, Aberdeen, UK  
Dr Ilídio Tomás Lopes, Polytechnic Institute of Santarém, Portugal  
Dr Fernando Lucas, Polytechnic Institute of Santarém, Portugal  
Dr Carla Vivas, Polytechnic Institute of Santarém, Portugal

Mini Track Chairs
Dr Claire Auplat, Novancia Business School, France  
Prof. Dr Alexander Brem, University Erlangen-Nuremberg, Germany  
Dr Aurélie Delemarle, ESIEE Management, France  
Dr Sandra Fielden, University of Manchester, UK  
Dr Alexandros Kakouris, of the University of Athens, Greece  
Dr Jun Li of the University of Essex  
Dr Maria Theresia Semmelrock-Picej of Alpen-Adria Universität Klagenfurt, biztec, Austria  
Professor Milan Todorovicof the Union Nikola Tesla University, Belgrade, Serbia  
Dr Marianne Tremaine, Massey University, New Zealand  
Dr Doan Winkel of the Illinois State University, USA

Committee Members

The 2012 conference programme committee consists of key people in the entrepreneurship and innovation community, both from the UK and overseas. The following people have confirmed their participation:

Kamarulzaman Ab. Aziz (Multimedia University, Malaysia); Zafer Acar (Okan University, Istanbul, Turkey); Bulent Acma (Anadolu University, Turkey); Hassan Ali Aghajani (University of Mazandaran (UMZ), Iran); Jaione Aguirre (Tekniker technological centre, Spain,); Saleh Al-Jufout (Tafila Technical University, Jordan); Khedidja Allia (University of Science and Technology, Algiers, Algeria); Hanadi Al-Mubarak (Kuwait University, Kuwait,); Rumen Andreev (Bulgarian Academy of Sciences, Sofia, Bulgaria); Zacharoula Andreopoulou (Aristotle University of Thessaloniki, Greece); Christos Apostolakis (Bournemouth University, UK); Erik Arntsen (University of Agder, Kristiansand, Norway); Omid Askarzadeh (Polad Saab Shargh, Tehran, Iran);
Claire Auplat (Imperial College Business School, London, UK); Miroslav Baca (University of Zagreb, Varaždin, Croatia); Alina Badulescu (University of Oradea, Romania); Susan Bagwell (London Metropolitan University, UK); Alan Barrell (Centre for Enterprise Learning, University of Cambridge, UK); Mihai Berinde (University of Oradea, Faculty of Economic Sciences, Dept. of International Business, Romania,); Cristin Bigan (Ecological University of Bucharest, Romania); Ferrucio Bilich (University of Aveiro, Portugal); Adam Jay Bock (University of Edinburgh, United Kingdom,); Dietmar Boenke (Reutlingen University, Germany); Ana Maria Bojica (University of Granada, Spain); Raymond Boyle (University of Glasgow, UK); Tina Bratkovic (University of Primorska, Slovenia); Alexander Brem (VEND consulting, Nuremberg, Germany); Fraser Bruce (University of Dundee, UK); Sheryl Buckley (University of Johannesburg, South Africa); Cagri Bulut (Yasar University, Izmir, Turkey); Jeffrey Burke (National Pollution Prevention Roundtable, Washington DC, USA); Kevin Burt (University of Lincoln, UK); Toly Chen (Feng Chia University, Taichung, Taiwan); Kuo-Sheng Cheng (National Cheng Kung University/Institute of Biomedical Engineering, Taiwan); Chuang-Chun Chiou (Dayeh University, Changhua, Taiwan); Nick Clifton (University of Wales Institute, Cardiff, UK); Costas N. Costa (Cyprus University of Technology, Lemesos, Cyprus); Fengzhi Dai (Shanghai University of Science and Technology, China); Leo-Paul Dana (University of Canterbury, Christchurch, New Zealand); Rogerio Atem De Carvalho (Instituto Federal Fluminense, Campos, Brazil); Sven H. de Cleyn (University of Antwerp, Antwerp, Belgium); Isidro De Pablo (Universidad Autónoma de Madrid, Spain); Armando Carlos de Pina Filho (Federal University of Rio de Janeiro, Brazil); Maria Chiara Demartini (University of Pavia, Italy); Izabela Dembińska (University of Szczecin, Poland); Charles Despres (Conservatoire des Arts et Metiers, Paris, France); Anca Dodescu (University of Oradea, Romania); Michael Doellinger (University Hospital Erlangen, Germany); Salah Doma (Sinai University, El-Arish, Egypt); Nelson Duarte (Porto Politechnic - School of Management and Technology, Portugal); Smile Dzisi (Koforidua Polytechnic, Ghana); Vasco Eiriz (University of Minho, Portugal); Hatem El-Gohary (Birmingham City University, UK,); Scott Erickson (Ithaca College, USA); Engin Deniz Eris (Dokuz Eylul University, Turkey); Mahtab Farshchi (London South Bank University, UK); Luis Fé De Pinho (Universidade Lusíada de Lisboa, Portugal,); Burca Felekoglu (University of Cambridge, Turkey); Paula Odete Fernandes (Polytechnic Institute of Bragança, Portugal); João Ferreira (University of Beira Interior, Covilhã, Portugal); Maria Joao Ferreira (Universidade Portucalense, Porto, Portugal); Sandra Fielden
(University of Trás-os-Montes Alto Douro (UTAD), Portugal); Florinda Matos (ICAA - Intellectual Capital Association Accreditation, Portugal,); Philip McClanaghan (University of Teeside, UK); Luis Mendes (Beira Interior University, Portugal,); Zoran Mitrovic (University of Western Cape, South Africa); Isabel Mota (Universidade do Porto, Porto, Portugal); Maurice Mulvenna (University of Ulster, Newtownabbey, UK); Jan Nab (Utrecht University, The Netherlands); Desai Narasimhalu (Singapore Management University, Singapore); Artie Ng (The Hong Kong Polytechnic University, Hong Kong); Alcina Nunes (Polytechnic Institute of Bragança, Portugal,); Birgit Oberer (Kadir Has University, Turkey); Jukka Ojasalo (Laurea University of Applied Sciences, Espoo, Finland); Noreen O'Shea (Novancia Business school, France,); Mohand-Said Oukil (King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia); Shaun Pather (e-Innovation Academy, Cape Peninsula University of Technology, Cape Town, South Africa); Ilge Pirnar (Yasar University, Turkey); Nataša Pomazalová (University of Defence, Brno, Czech Republic); Malgorzata Porada-Rochon (University of Szczecin, Poland); Jean-Michel Quentier (ESC-Bretange, Brest, France); Sudhanshu Rai (Copenhagen Business School, Frederiksberg, Denmark); Catarina Ramalho (University of Lisbon, Portugal); Ganesan Ramaswamy (College of Business Administration, King Saud University, Saudi Arabia); Ricardo Rodrigues (NECE / University of BeirInterier. Portugal); Jose Carlos Rodriguez (Economic and Business Research Institute - Instituto de Investigaciones Economicas y Empresariales, Mexico,); Jonas Rundquist (Halmsted University, Sweden); Paulo Rupino Cunha (University of Coimbra, Portugal); Balasundaram Sadhu Ramakrishnan (National Institute of Technology, Tiruchirappalli, India); Simone Scagnelli (University of Turin, Torino, Italy); Cezar Scarlat (University "Politehnica" of Bucharest, Romania); Mark Schatten (University of Zagreb, Varaždin, Croatia); Henk Schout (The Hague University of Applied Sciences, Netherlands,); Jeanne Schreurs (Hasselt University, Diepenbeek, Belgium); Maria Theresia Semmelrock-Picej (Klagenfurt University Biztec, Austria); Nima Shahidi (Islamic Azad University-Noorabad masasani Branch, Iran,); Armin Shams (University of Tehran and Sharif University, Iran); Namchul Shin (Pace University, New York, USA); Eric Shiu (The University of Birmingham, UK); Sandra Silva (Faculdade de Economia da Universidade do Porto, Portugal,); Carmen Sirbu (Danubius University, Romania); Aelita Skarzauskiene (Department of Social Informatics, Mykolas Romeris University, Lithuania); Dorotea Slimani (Innventia AB, Sweden); David Smith (Nottingham Trent University, UK); André Spithoven (Belgian Science Policy Office, Belgium); Peter Teirlinck (Hogeschool-
Universiteit Brussel, Belgium); Aurora Teixeira (Faculdade de Economia, Universidade do Porto, Portugal,); Mangaleswaran Thampoe (Vauniya Campus of the University of Jaffna, Sri Lanka); Milan Todorovic (University Union Nikola Tesla, Serbia); Marios Trigkas (Technological Educational Institute of Larissa, Greece); Lorraine Uhlaner (EDHEC Business School, France); Carla Vivas (Polytechnic Institute of Santarém, Portugal); Bernard Vollmar (Carl von Ossietzky Universität Oldenburg, Oldenburg, Germany); Catherine Wang (University of London, UK); Ismail Wekke (State College of Sorong, Indonesia); Wioletta Wereda (Siedlce University of Natural Sciences and Humanities, Poland); Doan Winkel (Illinois State University, USA); Catherine Wright (Heriot Watt University, UK); Fabiola Wust Zibetti (University of Sao Paulo, Brazil); Aziz Yahya (Universiti Teknikal Malaysia Melaka, Malaysia); Shaker Zahra (University of Minnesota, USA); Krzysztof Zieba (Gdansk University of Technology, Poland)
Biographies

Conference Chair

**Professor Ilídio Tomás Lopes** is Director of the School of Management and Technology. In addition to his role as director, he teaches in several master programs and develops his own and school research activities. He has a PhD in Management, with a thesis about intangibles identification, measurement and valuation. Dr Lopes is a member of international editorial boards and supervisor of master and PhD students. Currently, he is also an associate researcher at CCIM – Coimbra Centre for Innovative Management.

Programme Chairs

**Dr. Carla Vivas** is Sub director of School of Management and Technology. She is a student of a PhD Program in Management (specialization in economic management and decision sciences), working on a thesis about international strategies in the Portuguese wine industry. Dr Vivas is also a Professor at the School of Management and Technology where she teaches Management, Operations Management, Logistics and Strategic Management.

**Dr. Fernando Lucas** is the Coordinator of the recently created Unit Support for Employability and Entrepreneurship at the Polytechnic Institute of Santarem. His activities at the School of Management and Technology have been focused on Strategic Management and more recently also on Entrepreneurship and Innovation. Presently, he leads the Pedagogic Council. Before joining to IPS, he had a professional diverse experience, focusing on the management of international businesses and management information systems, after more than a decade of management in an industrial domain, when he also joined the management team of the national sector association.
Keynote Speakers

**Dr Heather Fulford** is Reader in Entrepreneurship and Academic Director of the Centre for Entrepreneurship at Aberdeen Business School, Robert Gordon University, Scotland. Her research interests include entrepreneurship education and education resources, the language of entrepreneurs, social enterprise start-up and social entrepreneurship education. She is currently supervising a number of doctoral students in aspects of entrepreneurship, entrepreneurship education and social entrepreneurship. She delivers courses at postgraduate and undergraduate level on new venture creation. Dr. Fulford is a visiting Fellow at Loughborough University, a Member of the British Computer Society, and a Fellow of the Chartered Institute of Linguists.

**Prof. Dr. Soumodip Sarkar** received his PhD in Economics from Northeastern University, Boston in 1995. He is currently Dean of Graduate Studies at the University of Évora, Portugal where he is also the coordinator of the Program in Entrepreneurship and Innovation and a professor in the Department of Management. He is also a researcher at CEFAGE-UE and his research interests are innovation, entrepreneurship and international business.

Mini Track Chairs

**Dr Claire Auplat** researcher in ecopreneurship, innovation and strategy, has worked on the co-industrial and institutional emergence of nanotechnologies for the last decade, firstly at Rice University (US), then at Sciences Po’s chair of sustainable development (France) and at Imperial College business school (UK), and now at Novancia Business School (France). Claire is a member of the French Research Council (ANR) specialist committee on eco-innovation (ECOTECH). Her areas of interest cover public policy and entrepreneurial dynamics, innovation and sustainable development.
**Prof. Dr. Alexander Brem** received his Diploma in Business Administration and PhD from the University of Erlangen-Nuremberg in 2004 and 2007, respectively. From 2004 to 2007, he was Senior Research and Teaching Assistant at the Chair of Industrial Management, University of Erlangen-Nuremberg, where he currently works as Assistant Professor. Moreover, he is Founder and Partner of VEND Consulting GmbH, Nuremberg. His current research interests include idea and innovation management and strategic management in SMEs. He is a Reviewer and editorial board member of various international journals such as Technovation and International Journal of Innovation Management. You can find out more about Alexander from www.idee-innovation.de (site in German)

**Dr Aurélie Delemarle** is an assistant professor at ESIEE Paris Group in innovation management. She is a researcher at LATTs and IFRIS. Her research focuses on the breakthrough innovations, market framing and S&T dynamics. Standardisation is at the core of her work (nanotechnologies, asynchronous design, ITRS Roadmap). She is a member of the French delegation at the ISO committee (TC 229) and actively participates to 2 task groups. As public policy also plays an important role in supporting the development of innovations, Aurelie also integrates this aspect in her work focusing on their role in supporting the development of breakthrough innovations.

**Dr Sandra Fielden** is a Senior Lecturer in Organisational Psychology in the Manchester Business School at the University of Manchester. She was editor of Gender in Management: An International Journal for the last 11 years, and received an Outstanding Service award in 2010. Sandra has been co-chair of the ‘Gender and Management’ track at the British Academy of Management and European Academy of Management and was a founder member of the ‘Gender in Management’ special interest group. She is co-editor of ‘International Research Handbook of Successful Women Entrepreneurs’, ‘International Handbook of Women and Small Business Entrepreneurship’ and ‘Minorities in Entrepreneurship’.
Dr. Alexandros Kakouris is a part-time lecturer in entrepreneurship and innovation at the University of Athens. He holds a Ph.D. in Physics and a M.Sc. in Adult Education. He has been involved in entrepreneurship research since 2006, involved mainly with educational issues. His special interest concerns fostering of entrepreneurship and innovation to science graduates and support of youth entrepreneurship through counselling. He also specialises in nascent entrepreneurship and virtual business planning.

Dr. Jun Li is a Senior Lecturer in Entrepreneurship and Innovation at the Essex Business School of University of Essex, UK. He is currently President of the Chinese Economic Association (UK/Europe) and Co-Editor of the Journal of Chinese Entrepreneurship. He teaches and researches in the areas of entrepreneurship and policies, innovation management, and Chinese entrepreneurship. His recent publications include Financing China’s Rural Enterprises (Routledge), and papers in internationally leading journals in entrepreneurship and innovation.

Dr. Maria Theresia Semmelrock-Picej is a senior researcher at the Alpen-Adria Universität Klagenfurt, biztec, Austria. Her research topics are innovation-oriented information-technology based customer knowledge management, information and knowledge management, cooperation management, related measurement issues and gender aspects.

Professor Milan Todorovic is a Professor of Entrepreneurship and Innovation, Corporate Entrepreneurship and Operations Management at Union Nikola Tesla University in Belgrade, Serbia. He holds an MBA from Melbourne Business School and has extensive international experience across diverse industries and government enterprises encompassing lecturing, management consulting, business development, directorships and successful management of global, mission critical business systems for leading international companies.
Dr Marianne Tremaine is a senior lecturer at Massey University, New Zealand and part of the indigenous Kai Tahu tribe. She specialises in cross-cultural communication, women and leadership, equal employment opportunity and managing diversity.

Dr Doan Winkel is an Assistant Professor of Entrepreneurship at Illinois State University. He received his Ph.D. from the University of Wisconsin – Milwaukee. His research has been published in the New England Journal of Entrepreneurship, the Journal of Occupational and Organizational Psychology, and the Journal of Vocational Behavior. His current research interests include the impact of entrepreneurship education, innovative teaching methods in entrepreneurship, and work-life balance.

Biographies of Presenting Authors

Saiful Abu Hasan Sazalli finished his degree from University Technology Malaysia major in Quantity Surveying in year 2003. Later, he had worked for QS Consultant in Malaysia. In 2006, he did his Masters of Project Management at University of Putra Malaysia. He is currently pursuing his PhD in Northumbria University, studying The Functional System of IBS in Malaysia.

Dr. Mohammed AlSudairi is currently working as an Associate Professor in College of Business Administration for MIS Department and the Vice-Rector of Business Development at King Saud University at Riyadh, KSA. His interested areas include IT, E-Business, E-Commerce, Information Systems Strategy and ERP. He has publications in reputed journals and conferences.

Christos Apostolakis holds an MA in Business Administration from Bournemouth University, an MA in Public Admin & Public Policy from the University of York, and a Ph.D. from De Montfort, UK He is currently working as a lecturer in Strategy at Bournemouth University Business School while at the same time he is the school’s PG Management Programme Co-
ordinator. Current research interests revolve around strategy & social entrepreneurship.

**Afsaneh Bagheri** is a post doctorate fellow at the Faculty of Educational Studies, University Putra Malaysia. She has recently obtained her PhD in educational Administration with concentration on entrepreneurship education and published papers on developing students’ entrepreneurial leadership competencies, entrepreneurial leadership learning model development, entrepreneurial self-efficacy, entrepreneurial intention, entrepreneurial learning and teachers’ entrepreneurial self-efficacy.

**Claudia Gabriela Baicu** is an Associate Professor, PhD at Spiru Haret University, Bucharest, Romania (Faculty of Marketing and International Affairs). The scientific field of interest is international financial activity, more precisely: international banking, financial innovation and its role in the context of the global financial crisis, tendencies on international markets, the change factors in financial sector, regulatory framework of international banking, regulatory arbitrage.

**Claudia Erni Baumann** is a Research Associate and PhD student at the ETH Swiss Federal Institute of Technology Zurich. She works at the Chair of Technology and Innovation Management. She holds MScin Sports and Physical Education and a M.A. in Business Administration with specialisation in Information, Media and Technology Management. Her research interests include chance encounters, knowledge creation, innovation, learning and sports economics.

**Cella-Flavia Buciumanhas** a bachelor in Automation and Computer Science and a Master degree in Business Administration and Marketing. She joined the university as an assistant professor in 2008. In 2010 she enrolled for a PhD in Engineering and Management at Politehnica University of Timisoara. Her academic interests include agile methodologies and measuring performance systems.

**Luísa Carvalho** is a Professor of Economics, Entrepreneurship and Innovation at the Department of Economics and Management, Business School – Setúbal Polytechnic Institute – Portugal since 1999. Luisa is a Researcher in CEFAGE – University of Evora- Portugal. Luisa has a Phd in management,
McS in economics. Also a author of several publications in national and international journals and book chapters.

**Piotr Chwastyk** is a researcher and lecturer at The Opole University of Technology. His field of research are innovation processes especially cost estimation in processes planning of innovation. He received PhD title in 2006. He is a member of the Polish Society of Production Management, and since 2006 a member of the board.

**Ileana Ciutacu** is a PhD student at the Bucharest Academy of Economic Studies' Institute for Doctoral Studies, Economics Department. Since 2007 she's been a member of The Center for Complex Studies in Bucharest, Romania, and in present is conducting a doctoral stage at Università degli Studi di Messina.

**Valdner Daízio Ramos Clementino** is a Brazilian economist and university professor of the Collegiate of Management at Federal University of Vale do São Francisco, currently performing, at the Department of Management, University of Évora, Portugal, doctoral thesis focused on Innovation, with specific focus on the vitiviniculture sector in the São Francisco Valley, Brazil.

**Ana Cordeiro** holds a master in Industrial Engineering. Ana is a Ph.D. student, Invited lecturer at the Production and Systems Department, School of Engineering, University of Minho, since 2010. Lecturing activities on Economics Engineering and Cost Analysis, at undergraduate and postgraduate courses. Also works as consultant at entrepreneurship and business management.


**Oscar Cristi** is a Research Fellow at the Global Entrepreneurship Center of the Universidad del Desarrollo, Chile. Dr. Cristi has teaching experience in applied econometrics and microeconomics. He holds a PhD in Agricultural and Resources Economics from University of Maryland College Park, USA.
Dr. Cristi´s research interests are in water economics and entrepreneurship dynamics.

**Maria de Lurdes** is a lecturer of Management at Estoril Higher Institute for Tourism and Hotel Studies (Portugal). She holds a M.Sc. in H.R. Policies and is presently attending a Ph.D Program at Universidade de Évora under the supervision of Professor Sarkar. Her current interests include strategic HRM, organizational learning, human capital and intrapreneurship.

**Pat Daly** is the Tourism & Corporate Marketing Director with Shannon Development, Ireland’s only Regional Development Agency. He is also a director of a number of public/private organisation. He is an industrial Engineer by profession, holds a Masters Degree in Management from Sheffield University and a PhD in Business from University College Cork, Ireland.

**Stefano De Falco** received the M.S. degree in electrical engineering from the University Federico II of Naples in 1999 and the Ph.D. degree in electrical engineering in 2003. He now coordinates a Technology Transfer Office of University of Naples.

**Luc De Grez** is an assistant professor in Psychology and Leadership Behaviour at the Hogeschool Universiteit Brussel (The Faculty of Economics and Management). He got a PhD in educational sciences at Ghent University. His research interests include the learning and teaching of communication skills, and entrepreneurial learning.

**Lavinia Sidonia Delcea** is currently a Ph.D. student in Economics with the research theme “Local Budgetary Policies and Economic Development”. Also a member of the Department of Economics within the University of Oradea, where I prepared seminars of “Macroeconomics” and “Techniques of tourism operations”.

**Dr Carine Deslee** from the University of Lille has been studying Participative Innovation in the context of the SNCF company during her PhD under the direction of Pr Desreumaux. Her other research interests are concerning innovation, strategic changes, eco-innovations, the management of waste and the role of managers in various contexts.
Biagio Di Franco is a PHD Student, Politehnica University, Faculty of Management in Production and Transportation, Romania. Master Degree in Management of Innovations Polytechnics of Mons, Belgium. Master Degree in Management of Transports University of Brussels, Belgium. Master Degree in International Trade, University of Brussels, Belgium. Degree in Sciences of Management - Catholic University of Mons, Belgium.

Thomas Domboka is a Doctoral researcher with Leeds Metropolitan University, Zimbabwean born settled in the UK since 2002. He is a professional administrator and company secretary with several years’ experience in business as company director and entrepreneur. In 2006 helped start a business that offers private education to migrants from Africa and other developing countries.

Diane Duparc is a PhD Candidate and Teaching Assistant in Management, Paris 1 Panthéon-Sorbonne University, Paris, France. She is interested in topics such as intellectual capital, networks, innovation and knowledge-based economy.

Shyamalie Ekanayake is a Ph.D. candidate attached to the Department of Industrial Management, University of Kelaniya, Sri Lanka. The research study titled “Core Competencies for Competitive Advantage: An Empirical Investigation of Manufacturing and Service Sector” contains strategic management objectives for value innovation. The writer holds 17 years of management experience in training, skill and technology development initiatives.

Cristina Fernandes (PhD in Management) She is Lecture at Instituto Superior de Línguas e Administração de Leiria (ISLA) and PolitechnicInstitut f Bragança and NECE- Research Centre in Business Sciences, University of Beira Interior (UBI). She research interest is about KIBS and Regional Competitiveness. She has published several papers in international journals.

Paula Fernandes (Ph.D in Applied Economics and Regional Analysis, 2005) is Professor of Management in the Polytechnic Institute of Bragança (IPB) - Portugal. Her research interest include: Artificial Neural Network, Tourism, Entrepreneurship, Marketing Research, and Applied Research Methods. Participation in 4 international projects I&D and more than 60 publications in proceedings and scientific journals with referee.
Ana Ferreira obtained her master degree in Biomedical Engineering in October of 2009. Since 2010, is a PhD student with a FCT grant at University of Minho in the Industrial and Systems Engineering Programme, developing research in the application of numerical methods for the efficiency and cost optimization of energy systems.

Isabel Ferreira: Licenciatura in Public Administration by University of Minho, Portugal. She has a Master in Public management by University of Aveiro, Portugal. PhD Student in University of Minho (Doctoral Programme in Technology and Information Systems), Portugal. She is also a teacher in Management School of Polytechnic Institute of Câvado and Ave (IPCA), Portugal.

João M. Ferreira PhD in Management) is Associate Professor at the University of Beira Interior (UBI) – Portugal. He is researcher of NECE – Research Centre in Business Sciences. His research interests include: strategy, competitiveness and entrepreneurship. He is editor of several international journals and He has published in a range of international journals.

Stelian Florica and I’ve graduated “Politehnica” University of Timisoara, Mechanical Faculty, section: Machine construction technology (French language). After this, I studied Master: Integrated Engineering at same University. Now I’m PhD. Student at “Politehnica” University of Timisoara, and the research is in the field: development and integrated collaborative conception of products in PLM platforms.

Denis Frydrych Denis is currently a PhD in Management candidate in the Entrepreneurship and Innovation Group of the University of Edinburgh Business School. He completed his BA in International Business from Munich Business School, Germany. He obtained aMSc in Management (specialism in Entrepreneurship) with Distinction from Cass Business School, London, UK.

Brendan Galbraith is an innovation academic in the Ulster Business School, University of Ulster. He is the Book Reviews editor at Technology Analysis and Strategic Management and has published widely in academic journals. Brendan is experienced in business model development in FP7 projects and is a member of the European Network of Living Labs.
Oleg Golichenko, Doctor of Economic Sciences, economist and specialist in the field of national innovation system, is currently a main research associate of the Central Economics and Mathematics Institute of Russian Academy of Sciences, professor of the Chair of Science and Innovation Development of Higher School of Economics, professor of the Chair of Intellectual Property Economics of Moscow Physics and Technique Institute and professor of the Chair of Institutional Economy of New Russian University, Moscow, Russia.

Francisco González Bree is an Academic Director Master in Business Innovation Deusto Business School CMO at Anboto (named the World’s best Startup 2010). BSBA Saint Louis University; MBAEdinburgh University, MBIDeusto Business School, PDP ESADE and Doctorate candidate (DBA) Kingston Business School. MCIM Chartered Marketer from CIM and he has collaborated as tutor for ESADE.

Dr. Elissaveta Gourova is Associate Professor at Sofia University. She has professional experience at Ministry of Transport and Communications, DG JRC–IPTS, and in expert groups at European Commission, EUTELSAT, Council of Europe. Her research is cross-disciplinary focused on Knowledge management and open innovation, as well as on e-skills, e-Learning, mobility and career of researchers.

Corina Grigore is a PhD candidate in Economics, with background in Economics and Business Administration. In 2011 she graduated with a dual MPA degree in Public and Economic Policy from the LSE and Sciences Po. She studied in the UK, France, Hungary and Romania. Her interests: economic development, economic governance, innovation policy and social responsibility.

Izold Guihur is a professor of management at Université de Moncton, in Canada. Her curiosity for innovation has guided her experience as engineer, teacher, and researcher. Her current research interests on innovation include the role of rich information, networks and relational capital in the process of innovation, in the contexts of small and medium enterprise and of family business, especially.

Emhamad Hamad is a PhD researcher at Nottingham Trent University. He was a public sector employee, 1985-2005 and has been a Faculty member
of the Collage of Economics, Omar Al Mukhtar University-Libya since 2005. He was a Coordinator of the Faculty of Economics, Al-Qubbah, 2006, Head of the department of Business Administration, Omar Al- Mukhtar University, 2007.

**Takashi Hirao** PhD. in Commerce He is working as an associate professor at the department of business administration and information of Tokyo University of Science, Suwa. His research interests are innovation management and human resource management. He has written some papers on research networks in semiconductor laser technology in US and Japan, and on British and Japanese labour management.

**Jukka Huhtamäki**, M.Sc. (Hypermedia) is a researcher, a teacher, and a founding member of Stanford’s Innovation Ecosystems Network. His research interests include visual social media analytics, methods of streamlining social network and information visualization, user and information modeling, and development of methods and implementation technologies for social, adaptive and distributed hypermedia.

**Maroun Jneid** is a PHD candidate at UniversitéParis8 with 13 years of professional experience in software projects management and engineering process activities and 11 years of experience in software engineering activities lecturing in the Antonine University’s Faculty of Engineering as well as its North Campus director for the last 4 years. Entrepreneur of an IT Management Consulting company

**Magdalena Jurczyk-Bunkowska** studied production management at Warsaw University of Technology, where she received a PhD title in 2004. Currently, she works at Opole University of Technology as a researcher and lecturer. She was a member of Polish Academy of Science. Now, her fields of research and interest are innovation management especially operational approach covering innovation process planning.

**Alexandros Kakouris** studied Physics at the University of Athens (1990). He also received a Ph.D. in Physics from the same University (1997) and a postgraduate certificate on “Distance Education” from the Hellenic Open University (1999). He has been the coordinator of the Career Office at the University of Athens since May 2004, he presently teaches innovation and
entrepreneurship at the same university. His research interests concern entrepreneurship education.

**Jussi Kantola** is new product development professor at University of Vaasa Finland. His prior employers include KAIST Korea, Tampere University of Technology Finland, University of Turku Finland, Romac International US and ABB Finland. His first PhD (IE) is from University of Louisville USA 1998, and second PhD (Industrial management) from Tampere University of Technology 2006.

**Glykeria Karagouni** is a Mechanical Engineer and a Lecturer at the Department of Wood and Furniture Design and Technology of TEI of Larissa. She holds a MSc at Modern Industrial Management and works on her PhD on Production Technologies, Knowledge-Intensive Entrepreneurship and Innovation in Low-Tech Sectors. Her current research interests are in technological and entrepreneurial strategy and knowledge management.

**Malte Kaufmann** holds masters of economics degree from the University of Heidelberg and is currently an external Ph.D. student of the Academy of Economic Studies in Bucharest, Romania. He is founder and CEO of KAUFMANN REAL ESTATE and member of the governing body of the Chamber of Commerce, Rhein-Neckar.

**Panayiotis Ketikidis** is the Vice Principal for Research, Innovation and External Relations of The University of Sheffield International Faculty, City College and the Chairman of the Management Committee and Academic Director of the Doctoral Programme at the South East European Research Centre (SEERC) with over 25 years of experience in management, education and research.

**Peter Kiryushin** is finishing his Ph.D. research in Environmental Economics at Moscow State University and as Master in Environmental Science, Policy and Management in Lund University, Sweden. He is involved in the comparative study on academic entrepreneurship and commercialization of cleantech innovations in Scandinavia and Russia.

**Ipek Kocoglu** has earned her B.S. degree in 2008, in Manufacturing Systems Engineering at Sabanci University, Turkey, her M.Sc. degree in 2010 in Science and Technology Strategies at Gebze Institute of Technology (GIT),
Turkey, and she is currently a Ph.D. student in Faculty of Management, at the GIT where she is also working as a research assistant.

**Thomas Kollen** is an Assistant professor at the Department of Management, Gender and Diversity Management Group, Vienna University of Economics and Business (WU). Doc Team Fellow of the Austrian Academy of Sciences. Visiting scholar at Goethe University Frankfurt, Germany. Research focus: Nationalisms in organizations, existentialist approaches to organization studies and management research, issues affecting homosexual entrepreneurs and employees.

**Hanno Kortleben** graduated from the PFH Private University of Applied Sciences Göttingen, Germany in February 2012 at the top of his class. He holds a M.Sc. and B.Sc.in General Management. Hanno is now working as a research assistant at the department of Entrepreneurship and Finance for Prof. Dr. Bernhard H. Vollmar.

**Stefan Lagrosen** holds a Ph.D. in business administration from Stockholm University. He is currently active as a professor of marketing and quality management at University West, Sweden. His main research interests are quality management in public services, international aspects on quality management, health and fitness marketing and the use of internet in marketing.

**Yvonne Lagrosen** holds a Ph.D. in quality management from Chalmers University of Technology. She is currently active as an associate professor of quality management at University West, Sweden. Her main research interests are organizational learning and quality management with relations to health and fitness, creativity, entrepreneurship, values/core values, and brain functioning.

**Hans Landström**, PhD in Industrial Management, holder of the Chair in Entrepreneurship at Lund University, Sweden. He is founder of Sten K. Johnson Centre for Entrepreneurship and responsible for courses in entrepreneurship at Lund University. His research interest includes entrepreneurial finance, informal and institutional venture capital, entrepreneurial learning and teaching, and the history of entrepreneurship research.
Zaidatol Akmaliah Lope Pihie is a lecturer at the Faculty of Educational Studies, Universiti Putra Malaysia. Her areas of specification are entrepreneurship education, leadership and educational management as well as teaching methodology. She has conducted many researches on the areas and published several articles and books in her field of specialization.

Ladislav Ludvík, Associate professor at VŠB-Technical University, Faculty of Economics of Ostrava, department of Business Administration. In the research area he deals with the problems of entrepreneurial environment, trends and development of entrepreneurship. For example he participated in work on ex-ante analysis for preparing of operational programme in the Czech Republic.

María Jesús Luengo PhD, is Associate Professor at Department of Management Evaluation and Business Innovation, at the University of the Basque Country, Spain. She has managed some research projects and she has contributed to scholar area with articles and books. Her current work focuses on knowledge management, intellectual capital and innovation in the regional areas and political quality in the EHEA.

Carla Susana Marques has a Ph.D. in Business and teaches Innovation and Entrepreneurship to undergraduate, master and doctoral students at the University of Trás-os-Montes e Alto Douro (UTAD), Portugal, and researcher at the Centre for Transdisciplinary Development Studies (CETRAD). Her main research interests are innovation, entrepreneurship education and women entrepreneurship.

Ing. Veronika Mašínová Veronika is apostgraduate student at Faculty of Economicsof Technical University of Liberec. In 2011 she reached engineer degree at the same faculty. She is a member of Marketing Department, she specializes in marketing research with focus on E-commerce. In her thesis she engages in online shopping and in factors influencing e-customers’ decisions.

Cristina Moisa is a Ph.D. Candidate at the Bucharest Academy of Economic Studies, Romania. She develops her doctoral research in the Research Center for Business Administration, Head Professor Marieta Olaru, Ph.D. Her main areas of interest are the performance models in the automotive industry and the economic, ecologic and social development.
Bala Mulloth is an assistant professor of entrepreneurship and innovation management at Central European University (CEU) Business School. His PhD from Polytechnic Institute of New York University (NYU-Poly) dealt with the rise and practice of social entrepreneurship in New York City's clean technology sector. His main research focus is in entrepreneurship and innovation.

Estera Laura Nemoianu is a third year PhD Student in marketing at the Bucharest Academy of Economic Studies. Her research interests include: sustainable marketing, eco-innovation, corporate social responsibility and sustainable business practices.

Alcina Nunes is an Assistant Professor on the Department of Economics and Management of the School of Technology and Management of the Polytechnic Institute of Bragança, Portugal. With a PhD in Mathematical Economics and Econometric Models her current research interests and publications concern the econometric evaluation of public policies, microeconometrics and entrepreneurship.

Sandra Nunes is a Professor of Analysis of Statistical Data; Statistic; Quantitative Methods and Mathematics, Department of Economics and Management, Business School – Setúbal Polytechnic Institute – Portugal since 1995. Researcher in CMA – Faculty of Sciences an Technology, New University of Lisbon- Portugal. She has a Phd in Mathematics -Statistics, McS in Actuarial Sciences.

María Obeso PhD, is Assistant Professor at Department of Business Administration at the University of Cantabria, Spain. She has been Visiting Scholar in Business School at the University of Bedfordshire, UK. Her current work focuses on knowledge management and organizational behaviour.

Manuel Oliveira was born in London and has worked for several multinational companies including the consultancy firm Accenture. Manuel is currently finishing a PhD in Industrial Engineering and Management at the University of Porto (DEGI-FEUP). Manuel lectures at the University of Aveiro and at the University of Porto and is an INESC TEC researcher.
Dorel Mihai Paraschiv is projector of international relations, as well as a professor of international business and negotiations at the Bucharest Academy of Economic Studies. He has a vast research experience in the following topics: international economic relations, sustainable development, social responsibility and strategy.

Ing. Jindra Peterkova, Ph.D. Assistant professor at VŠB-Technical University, Faculty of Economics of Ostrava, department of Business Administration. Her scientific focus includes contemporary concepts of business economics, innovations and management. She guarantees and teaches Management simulation game and Company strategy courses. She gained a lot of practical experiences at concrete companies.

Ioana Pop Cohuţ - Ph.D in Economics, senior lecturer of Economy of commerce, Development policy, Department of Economics, Faculty of Economic Sciences, University of Oradea, Romania. Her research interests include Tertiary economy and Business administration. She published numerous articles in prestigious journals and is involved in R&D projects.

Adalberto Rangone Master’s degree in Economics at the University of Oradea (Romania) Has pursued the professional license as Mediator in business controversy. From 2011 at present day: PhD student in Economics at the University of Oradea (Romania) and at the University of Pescara (Italy ). Professional experience: 2011: Finished the training as chartered accountant

Carla Riverola is a research assistant at La Salle Innova Institute – Ramon Llull University. She has a Computer Science Degree and Master of Science in IT Management at La Salle – Ramon Llull University in Barcelona. Her research interest is focused on the areas of Entrepreneurship intentions and Innovation life cycle.

Cristina Rodrigues holds a Ph.D. in Industrial and Systems Engineering. Assistant Professor in the Department of Production and Systems, School of Engineering at the University of Minho and is responsible for disciplines of applied statistics in undergraduate and master engineering courses. She is also a researcher fellow at Algoritmi R&D Centre.
Fernando Romero holds a Ph.D. in Science and Technology Studies from the University of Manchester. He is an Auxiliary Professor at the Production and Systems Engineering Department, in the University of Minho. He publishes regularly in the area of Industrial Innovation and Innovation Systems. His recent interests lie on the relations between university and industry.

Ted Sarmiento is Senior Lecturer at the Business School of Leeds Metropolitan University, Leeds, England and is currently researching small business ‘success’ factors as part of a DBA programme. A keen cyclist taking part in Cyclo-Cross, Time Trial and Sportive events Ted also has a small business interest in a holiday let in Northumberland.

Henk Schout MA, MCC. Programme manager of the Centre for Innovation & Entrepreneurship. He realizes innovative entrepreneurship projects at regional SMEs in the greenhouse horticultural industry. He developed an undergraduate entrepreneurship programme and his research fields are drivers of entrepreneurial ambition and the influence of leadership on innovative capacity. He has a background in corporate communication.

Sabina Seran is a PhD Student at the Politehnica University of Timisoara, and has a double diploma in Communication and PR and in Public Administration (2008) and an MBA (2010) with the specialty Marketing. Mrs SERAN has written on several aspects of prosumer collaboration tools and innovation strategies.


Ângela Silva is an Assistant Professor at Lusíada University, on Vila Nova de Famalicão. She obtained the PhD in Industrial Engineering and Systems in 2008 at the University of Minho. The research area focuses on the implementation of operations management tools on industrial environment.
Cândida Silva is a PhD student of the Doctoral Program of Technology and Information Systems, Master in Management and Industrial Engineering, and Graduate in Informatics and Systems Engineering. Cândida Silva is Assistant at the Management and Industrial Studies School, of the Polytechnic Institute of Oporto, and she is also President of the Student Chapter of the Association for Information Systems, of the University of Minho.

Sandra Silva is Assistant Professor at Faculty of Economics, Porto University (FEP). She holds a PhD in Economics from FEP. She published a pedagogic book on macroeconomics and articles related with evolutionary economics, innovation and economic growth (published in international journals as JEE). Current research interests are on evolutionary economics, innovation, growth, poverty, inequality.

Aelita Skaržauskienė has degree of Doctor of Social Sciences from ISM, University of Management and Economics in Vilnius, Lithuania. In her work dr. A. Skaržauskienė applies both knowledge of management and modern leadership-correlated disciplines such as Business dynamics, Systems thinking, Chaos and complexity theories. Dr. A. Skaržauskienė was the couch in the Self-managing teams building project in European Parliament together with DEMOS Group Belgium.

Zsuzsanna Katalin Szabó, Vice-Dean of the Faculty of Economics, Law and Administrative Sciences of Petru Maior University, Tirgu Mures, Romania; PhD in Mathematics, publish research papers and books in the field of entrepreneurship education SMEs. Founding member Association of Economic Faculties in Romania,

Kambiz Talebi is an associate professor of Entrepreneurship Faculty, University of Teharan, Iran. Kambiz has had a number of papers published in International Conferences, and 9 published in ISI journal. Also has been an Editor of 5 books

Peter Teirlinck is professor Innovation Management at Hogeschool-Universiteit Brussel. His main research interest areas include: R&D & Innovation Management in SMEs; Impact assessment of public funding for RTDI; Innovation and regional development.
Marianne Tremaine works in the School of Communication, Journalism and Marketing at Massey University, New Zealand. She has published on gender and leadership and female entrepreneurship and is currently working with two colleagues on a call for a special issue of Gender in Management journal: 'Female Entrepreneurship - Challenges, Conflicts and Pathways in the current environment

Marios Trigkas is a ph.D. Forester specialized in wood and furniture business economics and innovation. He is a scientific collaborator of the Centre for Research and Technology – Thessaly and of the Department of Wood and Furniture Technology and Design. His current research interests are in Economics of Innovation, Applied Innovation, Business Economics and Entrepreneurship.

Jiro Usugami is a Professor of Management at Aoyama Gakuin University, Japan. He received his Ph.D from the George Washington University, USA. Hirofumi Abe is incubation manager of Center for Industrial and Governmental Relations at the University of Electro-Communications, Japan. He received his Ph.D from the Oita University, Japan.

Luís Valentim Ph.D Candidate, Strategy and Organizational Behavior, School of Economics, University of Coimbra, Portugal, MSc, Nova School of Business and Economics, Lisbon, Portugal. MBA, HEC School of Management, Paris, France. Assistant Professor, IPAM - Portuguese Institute of Administration in Marketing, Lisbon, Portugal. Former Managing Director of Makro Portugal – Metro Group

Hannu Vanharanta, began his professional career in 1973 at the Finnish Ministry of Trade and Industry. After that he worked many years for Finnish international engineering companies. Since 1998 he has been professor in Industrial Management in Tampere University of Technology. His main research interests are: Management and Leadership, Strategic Management, Financial Analysis, Decision Support Systems.

Armando Luís Vieira is assistant professor at the University of Aveiro. His research interests include services marketing, tourism, and psychology. He is the author of a range of books and articles on these and related subjects. Recent publications have appeared in International Journal of Tourism Research, Journal of Relationship Marketing, and Journal of Sexual Medicine.
Filipa Vieira holds a Ph.D. in Industrial and Systems Engineering. Filipa is also an assistant Professor at the Production and Systems Department, School of Engineering, University of Minho, since 2007. Her Lecturing activities on Innovation and Economics Engineering, at undergraduate and post-graduate courses. Researcher fellow at CGIT (Production and Systems Department Research Centre). Author of several research papers on innovation.

Marcia Villasana holds a Ph.D. in Public Policy, professor, and part of the research chair in Knowledge Management at Tecnologico de Monterrey (ITESM). Her research interests include: regional economic development; science, technology and innovation policies; regional systems of innovation; technology transfer; university-industry interactions; and academic entrepreneurship.

Jim Walsh is a lecturer in Management at University College Cork and fellow of the Irish Academy of Management. He is a winner of 8 international awards for his research output which includes 3 books, over 250 papers, chapters and conference proceedings. He is a graduate of Harvard University & National University of Ireland.

Cathie Wright BSc (Hons), MBA, is a part-time teaching fellow at Heriot Watt University, Edinburgh, specialising in Innovation Management and Business Venturing. She has 20 years practitioner experience managing economic development projects at international, national and local level. Before joining Heriot Watt in 2005, she worked with Scottish Enterprise delivering successful projects promoting e-business to Scottish SMEs.

Afonso Zinga is currently a lecturer of Strategic Management at the Faculty of Economics, University of Coimbra. He holds a Ph.D. in Business Management with specialization in Strategic Management from the University of Coimbra. His research interests include entrepreneurship and innovation, internationalization, growth and international development of new enterprises, networks, and family business governance.
Modelling the Style in Entrepreneurial Learning From Experience

Ioannis Akritidis¹ and Alexandros Kakouris¹,²
¹Career Office, National and Kapodistrian University of Athens, Athens, Greece
²Faculty of Informatics and Telecommunications, National and Kapodistrian University of Athens, Athens, Greece

Abstract: Entrepreneurial learning is fundamentally experiential. According to Minniti and Bygrave (2001), entrepreneurs essay their options based on observations of real parameters of the market. In this way, they “learn” a market situation, react and modify their decisions relying on gradually verified expectations. Experiential learning has also been described by Kolb as a sequential process amongst certain learning modes. Due to individual differences, practitioners exhibit preferences in the way that they learn experientially – i.e. the learning style conception. Hence, entrepreneurial performance may not depend on mere information but on learning asymmetries. In this work, we extend the evolutionary model of Minniti and Bygrave to simulate the effect of an underlying “style” in observing and conceptualising market data and events. Comparative examples for different styles are illustrated and discussed. The results indicate different efficiency in adaptation between individuals of different style. Implications pertain to evolution of small firms which operate in fluctuating niche markets. They also concern innovating firms that aim to enter new markets with unknown parameters beforehand. The present article is a first attempt for a more concise modelling of entrepreneurial learning from experience.

Keywords: entrepreneurial learning, experiential learning, numerical modelling, innovation, individual differences, adaptation
Service Design Systems Driven Innovation Approach for Total Innovation Management

Mohammed AlSudairi and TGK Vasista
King Saud University, Riyadh, Saudi Arabia

Abstract: The increasing innovation potential of integrating distinct disciplines has a considerable impact on the innovation process. This development affects the way in which technology management and technology intelligence should be carried out. As a consequence, the integration of external information sources becomes important. This raises a question of how technology intelligence network comprising external information sources should be designed. One of the solutions propounded by economists is the capability of producing a standard equilibrium model. Our effort will be to address this unique challenge of achieving equilibrium through proposed total service innovation model. The New Growth theory asserts that the power of ideas is an unlimited resource in economic activity. The Architectural Innovation is broad enough to include service innovation. Thus it is a form of Total Innovation Management Methodology to introduce the workings of the best practitioners. The effort of this paper presents a methodological approach to achieve Total Service Innovation Management.

Keywords: service blueprint, service design systems management methodology, service innovation, service innovation integration, total service innovation management
A Resource-Based View Model in Achieving Entrepreneurial Innovation for Canadian Universities

Christos Apostolakis¹, José Carlos Rodríguez², and Mario Gómez³
¹The Business School – Bournemouth University, UK
²Economic and Business Research Institute – UMSNH, Mexico
³Institut National de la Recherche Scientifique, Canada

Abstract: Entrepreneurial universities have emerged as a consequence of survival in a global competitive environment. It is for this reason innovation becomes so important within the context of entrepreneurship. The principal aim of this paper is to discuss how well entrepreneurial innovation could be applied and produce significant and sustainable results in Canadian Universities. This is attempted via the implementation of a resource-based view approach which allows for specific strategic dimensions to be investigated. Methodology-wise the paper relies upon a qualitative research approach that includes interviews with university students and members of staff as well as secondary data regarding development of entrepreneurial activity and innovation within universities in Canada. It is anticipated that a quantitative approach could be used for a follow-up work which can test capacity for generalisation of this paper’s findings. Current research outcomes verify that Canadian universities could support technology and knowledge transfer which can be potentially useful for industry plus that entrepreneurial innovation is increasingly integrated in their culture.

Keywords: entrepreneurial innovation, resource-based view approach, Canadian Universities
Certifying Innovation: A Proposal for a Standard With Innovation Management System (IMS)

Anna Arnò¹, Stefano De Falco² and Guglielmo Trupiano³
¹LUPTUniversity of Naples Federico II and AICTT (Italian Association for Technology Transfer Culture promotion), Italy
²TTO School of Sciences and Technologies University of Naples Federico II and AICTT (Italian Association for Technology Transfer Culture promotion), Italy
³LUPTUniversity of Naples Federico II, Italy

Abstract: Today it’s definitely known to everyone what Quality Management System is. A Quality Management System (QMS) is the set of all connected and interdependent activities that affect the quality of a process, a product or a service. Since the 80s the first Western companies, especially those Americans, started to realize the importance of the quality development for the success of an organization. It’s always in the 80s that the first of standards of the reference ISO, aimed to the quality were published. In 1987, in fact, the International Organization for Standardization adopted the British code BS 5750 and published what is now called ISO 9000 series of standards. First of all, a cultural evolution, and then a technological revolution, is the history of the quality. This important legacy in terms of know-how, best practices and experiences has been used by the Italian Association for the promotion and the enhancement of the Culture of the Technology Transfer (AICTT), to transfer the results obtained in the field of the quality to the field of the business innovation. For the first time in Italy, but also in Europe, we speak of IMS, Innovation Management System as a means of certification. The core of this certification, proposed in an innovative form by AICTT, is to detect firm’s ability to innovate, but not with regard to certification of the innovation made ex post, that is still a novelty in the panorama of certification activities, but with reference to the firm’s ability of quantification of the tangible and intangible assets (human capital, creativity, etc.), measured using a parametric method based on a proprietary panel of indicators that are not statically linked each others, and free of any document of structural heaviness replaced by a fully web-based platform, inserted in the circuit system of university-industry-bank. To this end, the AICTT has filed a trademark, CTE (Company Technology Efficiency), which puts companies in a certain class of efficiency (the same way as
it does for appliances with respect to energy compliance) and based on this can aspire to a certain threshold of credit in the industrial research.

**Keywords:** certifying innovation, innovation management system, technology transfer, audit, efficiency

**The Main Drivers of Financial Innovations: Evidence From the Global Crisis**

Claudia Gabriela Baicu¹, Olimpia State² and Mariana Iatagan¹

¹Spiru Haret University, Bucharest, Romania
²Academy of Economic Studies of Bucharest, Romania

**Abstract:** A key characteristic of the last decades was the development of financial innovations in a fast pace. Many of such innovations have emerged in the United States and then have spread to other financial markets. Thus, a feature of the financial innovations is the rapidity they propagate from one financial institution to another, from one financial market to another, which makes easier the process of integration at the international level. Among the most quoted factors contributing to the burst of financial innovations are financial market instability and the rapid developments in information technology. A particularity of innovation in financial fields compared with innovation in other fields is the important role that regulation has in emerging new products and services. Banks always search way to circumvent regulations that affect their profitability. A relevant example in this respect is the role that financial innovation played in the pre-crisis period. By securitization of credits, many banks in developed countries abandoned the traditional business model and adopted a revolutionary one (“originate and distribute” model). The new instruments of credit risk transfer allowed banks to diminish the burden of regulatory capital, but, at the same time exposed them to hidden risks. Financial innovation contributed to creating complex and opaque products that affected stability of financial system and imposed the reform of financial regulation. A key issue for regulators is to allow only the financial innovations that are beneficial for society. Against this background, the first section of the paper reviews the main factors that stimulated innovation in financial sector. The role of financial innovation in the context of the global crisis is emphasized in the second section. Finally, the paper concludes with some proposals to
building the regulatory framework for financial innovations in order to maintain a balance between innovations on the one hand and safety and financial stability, on the other hand.

**Keywords:** innovation, financial innovation, the global crisis, regulatory arbitrage, financial regulation

**Evaluation and Adoption of University Technologies by Enterprises**

**Fernando Barbosa and Fernando Romero**  
**Department of Production and Systems Engineering, University of Minho, Guimarães, Portugal**

**Abstract:** The relationships between university and industry have become increasingly important. On the one hand, investment in new technologies, as a response to the rapid and constant changes in the competitive environment, is vital to firms, and on the other hand, the universities have been called upon to have a more intervening stance in the enterprise context, reinforcing their so-called “third mission” in terms of a direct intervention in the economic circuit. Policy directives have led to an almost generalized adoption of specific measures by the part of the higher education sector, including the implementation of organizational structures that deal with technology transfer (technology transfer offices, science parks and start-up incubators near the university premises’), the implementation or reinforcement of new regulatory structures concerning intellectual property (the possibility to protect research findings by university staff through the patent mechanism) and stimulus for greater interaction with society at large (alterations in the requirements for career progression). In this work we propose to look at the perspective of the enterprise, and explore the motives, the mechanisms, and the practice of firms that interact with universities. We privilege an integrated view of the phenomenon, focusing on the process of evaluation and adoption of technologies generated in the universities, and licensed or acquired by firms. Research on this theme is scattered and difficult to integrate, or to extract definite conclusions from it. The main research questions are: what are the main benefits, barriers and outputs perceived by firms in their interaction with universities? what are the main tools, methodologies, criteria, and relative weights with
which firm evaluate their investment in new technologies? The research was based on a quantitative approach and on an intentional non-probabilistic sampling strategy. The sample includes thirty three Portuguese firms, from different sectors. The selection criteria was based on the innovative performance of the firm, and on the concomitant presumption that innovative activities are well structured inside the firm. The sample includes micro, small, medium and large firms. A proportion of the sample includes conglomerates, and in fact, the sample represents approximately one hundred and twenty two firms. A quantitative structured questionnaire was the main instrument of data collection, but some interviews with selected firms were also realized, in order to substantiate or consolidate some of the data that was obtained through the questionnaire. In this paper we present the preliminary results of the analysis of that data. One of the main results was the realization that the criteria, tools and methodologies that are adopted by firms are not uniform throughout the process of evaluation and adoption of the technologies. It depends on the stage of the process. Accordingly, we propose a division of the process in specified stages and we identify which criteria, tools and methodologies firms’ values most at each one.

**Keywords:** technology evaluation and licensing, innovation, university industry relations, technology adoption and transfer

**Voice Behaviour – Intrapreneurship in Sheep’s Clothing?**

Maria de Lurdes Calisto¹ and Soumodip Sarkar²

¹Management Scientific Area; Estoril Higher Institute for Tourism and Hotel Studies; Estoril, Portugal
²Department of Management, University of Évora, Portugal and Center for Advanced Studies in Management and Economics, CEFAGE-UE, Portugal

**Abstract:** During the last decades there has been a growing interest in the organizational behaviour literature in extra-role behaviour. The most researched form of such behaviour is organizational citizenship behaviour (OCB), a form of extra-role behaviour that includes being helpful and compliant, with the intention to maintain and reinforce the status quo. Al-
though this type of extra-role activities is important, many researchers argue that it is not sufficient and that organizations also need employees who are willing to challenge and bring about innovation and constructive change. Voice behaviour refers to the constructive challenge intended to bring improvement. This type of behaviour is about making innovation and change suggestions and pointing-out the necessary modifications to procedures. This is particularly important when an organization's environment is dynamic. In many ways this construct originating from the organizational behaviour literature seems very similar to the construct of intrapreneurship or entrepreneurial behaviour in the entrepreneurship literature. The authors from this field of research have also noted the importance of employee-initiated change for organizational adaptability and there has also been a growing academic interest in intrapreneurship in the last decades. This growing interest is based on the commonly accepted argument that, in an innovation context, effective internal entrepreneurship facilitates the firm’s exploitation of its current competitive advantages and exploration for tomorrow’s opportunities. Some of the discussions around entrepreneurial activity in strategic management and entrepreneurship literatures argue that strategy originates within the organization via individual entrepreneurship and that the impetus for innovation often occurs at lower levels in an organization. Considering this, many authors in this field argue that internal entrepreneurship is in many organizations much more a question of culture and employee behaviour, than it is of established research and development processes. In this paper we demonstrate the similarity between voice behaviour construct from the organizational behaviour literature and intrapreneurship construct from the entrepreneurship and strategic management literatures, thus contributing to the most need multidisciplinary approach to entrepreneurial behaviour.

**Keywords:** entrepreneurial behaviour; extra-role behaviour; innovative behaviour; intrapreneurship; voice behaviour
Innovation and Internationalization of IT Companies – Comparative Case Studies in Brazil and Portugal

Luísa Carvalho¹, Teresa Costa² and Simone Galina³
¹CEFAGE- University of Évora and Economics and Management Department - Institute Polytechnic of Setubal, Portugal
²Economics and Management Department, Institute Polytechnic of Setubal, Portugal
³Management Department, School of Economics, Business and Accountancy of Ribeirão Preto, University of São Paulo, Brazil

Abstract: This paper uses a case study methodology to examine the process of innovation of internationalized Information Technologies (IT) companies in Brazil and Portugal. It was directly applied an interview to four IT companies, two from Brazil (Navita and Stefanini) and two from Portugal (Altitude Software and Ydreams). The study has two main objectives, firstly analyze the innovation management for internationalization of IT companies according with the theoretical model of innovation presented by Tidd et al (2005), secondly compare the process of innovation management of IT companies between an emergent economy (Brazil) and a small developed economy (Portugal). The study allowed some findings about similarities of IT companies in Portugal and Brazil, such as, the importance of the links with universities, the higher qualification of the founders, the innovative and international profile of the entrepreneurs that promotes the establishment of networking and partnership in global markets. The results also suggest that some internationalization strategies are mainly dependent from the internationalization process of their clients. This study also reveals some differences related to the dimension of domestic market and the degree of economic development of studied countries. Finally, we believe that within the existing literature, the original contribution of the paper lies on its comparison of innovation management of IT companies in two countries in different stages of development and with different dimensions of domestic market.

Keywords: innovation, internationalization, IT companies, case study
Enterprise Potential of Portuguese Students Fostered by an Entrepreneurship Education Program

Maria Isabel Carvalho¹, Jorge Simões², António Samagaio¹ and Eduardo Couto¹
¹Department of Management, ISEG/School of Economics and Management, Technical University of Lisbon, Lisbon, Portugal
²Department of Management, School of Management, Polytechnic Institute of Tomar, Tomar, Portugal

Abstract: Several actions to promote entrepreneurship have been carried out with the aim of providing young people with entrepreneurial skills essential to address global change and to engage in innovative activities critical to countries’ competitiveness. Entrepreneurship education is based on the recognition of the importance of familiarity, during childhood and adolescence, within the context of small businesses and the ability to stimulate motivation and the attributes and skills related to entrepreneurship through educational experiences, in order to present it as a career option and promote the latent enterprise potential of young people. Although the numerous ongoing Entrepreneurship Education Programs (EEP), it has not been made an independent evaluation of their alleged benefits, especially in pre-University Education. The purpose of this study is to assess the contribution of an EEP, addressed to the Secondary education, for young participants’ desire for future self-employment and for the development of attitudes towards characteristics commonly associated with entrepreneurship, including achievement motivation, personal control, creativity, leadership and intuition. Demographic characteristics that, according to the literature, may influence the attitudes toward entrepreneurship and propensity for venture creation, have been included as the influence of family role models, gender, ethnic backgrounds of young people, parents emigration experience, the type of school attended, repeated participation in EEP and the cultural context. To collect data, a questionnaire was completed by students participating in the EMPRE Program – Entrepreneurs at School, implemented in a total of five secondary schools (the study population) in the academic year 2009/2010, obtaining 182 answers. It was used a control group for comparison of results. In opposition to previous research conducted abroad, we didn’t find evidence that participation in the EEP can foster positive attitudes toward self-employment since the preference
of the Portuguese youths, in terms of a career choice, has to do with their professional exercise as employees. However, the study found that participants in the EEP displayed greater enterprise potential than nonparticipants, pointing to the need for an extended discussion on the suitability of the methodology behind the EEP. The conclusions also suggest the possibility of a leakage of the Portuguese youths’ potential and the resources spent by schools and the promoters of the EEP that, judging by the intentions expressed by students, will not have the desired returns in terms of independent business creation. Furthermore, the study highlights the relevance of cultural context in the development of enterprise potential, recommending a more aware transference of EEP to diverse cultural environments.

**Keywords:** entrepreneurship, education, latent enterprise potential, attitudes

**Entrepreneurship's Contribution to the Local Economic Development of Romania’s North-West Development Region through trade**

Adina Catana and Lavinia Delcea
Faculty of Economics, University of Oradea, Oradea, Romania

**Abstract:** Trade, as a common form of entrepreneurship, was and remains an engine of economic development. According to European Commission statistics, in the 90’s, commercial enterprises represented 30% of all enterprises and trade provided 16% of total employment, while representing over 13% of EU’s GDP. There were about 5 million businesses producing 640 billion ECU and 21.5 million jobs divided between retail, wholesale and intermediaries. As a link between producers and consumers, trade is nowadays a dynamic sector that generates about 11% of the EU’s GDP. One in three companies in Europe is active in the trade sector, which is a major source of job creation: more than 30 million Europeans work in commerce, being one of the few sectors in Europe that creates jobs constantly. It also supports millions of correlated jobs across the supply chain, from small local suppliers to international companies. Trade is a growth factor contributing through its quality of service activity to the GDP and to the formation of companies’ and state’s financial resources used for development.
Through its contribution to the employment of the active population, trade can be considered one of the factors of economic development and of higher living standards of people. The commercial sector is the second largest supplier of jobs within the European Community, which was able to create jobs in the last decade where other sectors lost them. Trade is one of the main channels of innovation and technology transfer. The EU has an important position in the global market for innovative products. Trade has been an intrinsic element of postwar economic growth and trade levels today have no precedent in history. Commercial activity has reached a very high level of development, both as absolute value and reported worldwide. Trade is an essential mechanism of movement of goods and services worldwide, being also the central link in the transfer of technology. According to a study of the Urban Development Unit of the World Bank from 2006, entitled "Local Economic Development. Quick Reference", local economic development is the process in which public, private and non-government sectors work together to improve conditions for economic growth and employment of the labor force. Because of the globalization process, trade has seen a significant development, especially due to the expansion of large chain stores. This paper focuses on the study of trade’s evolution in the North-West Development Region of Romania, and aims to determine the influence of entrepreneurship, namely the expansion of large stores, on the employment of the labor force in the region and thereby, its effect on local economic development.

**Keywords:** entrepreneurship, trade, employment, regional development

# The use of Multi-Criteria Analysis to Evaluate Innovative Solutions

**Piotr Chwastyk**  
Institute of Innovation Processes and Products, The Opole University of Technology, Opole, Poland

Abstract: Innovation processes are an important factor determining the development of enterprises. According to the philosophy of Continuous Innovation, companies should continuously seek out and pursue innovation. Usually there are many variants of innovation solution. The article
concerns the evaluation of innovative solutions, which should indicate the solution to ensure the greatest benefits and the chance on the success of implementation. The uniqueness and complexity of innovation processes, the accompanying uncertainty and interdisciplinary knowledge makes evaluation of solutions difficult. Evaluation of solutions is based on a set of deterministic and fuzzy criteria. They will be concerned primarily benefits that innovation brings. Achieving the intended benefits is often associated with high costs. Therefore, the criteria should also include evaluation of the implementation process of innovation. In this article a multi-criteria analysis is proposed to apply in order to conduct the evaluation of innovative solutions. The criteria were presented that should be included in the assessment process and assumptions of this method. In the proposed solutions may find the variants among the different types of innovation. It is extremely difficult to compare the innovations of a different nature. Therefore, another problem discussed in the article is a narrowing of the proposed solutions to those types that can be evaluated on the basis of identical criteria. This problem can be solved using well-known theory of production management, Theory of Constraints .Identification of constraints ensures that implementation of innovation in this place will be beneficial. The proposed variants of innovative solutions for the constraints can be assessed together due to the convergence of goals. This approach to the evaluation of innovative solutions is the result of the first part of the study, which relate to ongoing innovation processes in Polish enterprises. So far, the analysis of 40th innovation processes were carried out in 12 companies.

**Keywords:** innovation process, evaluation process, multi-criteria analysis

---

**Barriers to Innovation Amongst Small and Medium-Sized Enterprises (SMEs) in Portugal**

**Ana Cordeiro and Filipa Vieira**  
**University of Minho, Guimarães, Portugal**

**Abstract:** The importance of innovation on the survival and competitiveness of organizations is an undeniable fact. Small and Medium enterprises (SMEs) represent 99,99% of all Portuguese firms. This reality is shared by other European countries and therefore it is relevant to study their innova-
tive behaviour and attitudes in order to achieve competitiveness and sustainability. The present study inquires about barriers to innovation, namely, what are the barriers faced by domestic companies, which barriers are easier to recognize and overcome and what is the level of importance they have on the firm point of view. The course of the investigation consists primarily in undertaking literature review on topics such as innovation, barriers to innovation, SMEs, strategy and competitiveness. The theoretical support, resulting therefrom leads to the building line of work that is embodied in two surveys. The results achieved made possible the creation of two new models of classification and segmentation of the barriers. The BARINOV Model that evidences the existence of internal or external barriers and flashes upon the concept of deviation barrier. The BARIFASE Model embodies the innovation process through three phases and evidences the occurrence of the barriers to innovation during these stages.

Keywords: SMEs, innovation, barriers to innovation, BARINOV model, BARIFASE model, Portugal

Portuguese Social Stock Exchange – Assessment of Sustainability

Teresa Costa and Luísa Carvalho
Economics and Management Department, Business School, Setúbal Polytechnic Institute, Portugal

Abstract: Social organizations have an important role detecting and exploring social opportunities. Frequently they are the solution to social problems where market and government fail. The social entrepreneurs identify and solve social problems where the others just see barriers, identifying and evaluating opportunities, disseminating new approaches and proposing sustainable solutions that contribute to create social value. This article, firstly presents a literature review about social entrepreneurship, social innovation and social entrepreneur, considering different approaches and perspectives. Secondly, through a qualitative methodology, it is studied the projects included in Social Stock Exchange (BVS). BVS replicates the atmosphere of a stock exchange and its role is to approach civil society organizations and social investors that are available to support these organizations by purchasing their social shares. This project is developing innovative ap-
approaches to attract financial resources in order to solve social problems, including the eradication of poverty and other social risks. Through the promotion of social investment, the BVS proposes an innovative financial model supported not in a philanthropy or charity perspective, but deciding according with the social profit of each project. The empirical study based on interviews applied to key-informers from social projects included in BVS. The interviews have three main objectives: 1- Identify the degree of project attractiveness; 2-Understand the reasons of project attractiveness in terms of funding; 3-Assess the sustainability of the projects, concerning economic dimension (eg job creation), social dimension (eg, resolution of a social need for a vulnerable group) and environmental dimension (eg, reduction of impacts on the environment). Finally we believe that this paper contributes to a better understanding of the factors that promote the attractiveness of social projects and highlight the importance of improvement concerning management practices.

**Keywords:** case study, social entrepreneurship, social stock exchange, social value, sustainability

**Does it Make Sense to go Against "Shadow Entrepreneurs"?**

**Oscar Cristi¹, José Ernesto Amorós¹ and Juan Pablo Couyoumdjian²**

¹School of Business and Economics Universidad del Desarrollo, Chile
²School of Government, Universidad del Desarrollo, Chile

**Abstract:** The relationship between entrepreneurship and economic development is now widely recognized. Under an appropriate institutional environment, human creativity and inventiveness - in other words, entrepreneurship- is the basis of economic progress. Entrepreneurship can thus be expected to lead to higher income levels and a reduction in poverty. In this paper we argue that this result also holds when we consider the activities of “shadow entrepreneurs”, that is entrepreneurs who undertake their activities in the informal sector of the economy. More generally here we claim that informal activities are truly entrepreneurial in nature. Informality represents an individual’s best response to an environment with sub-optimal institutions and, therefore, high costs of doing business. At the same time, the specter of poverty is an additional Incentive to engage in
self-employment or to participate in the informal sector of the economy. We are aware that greater informality is a reflection of a bad institutional environment, as noted above, and thus has a negative effect on economic development. But this is, in effect, a comparison with a first-best institutional environment. In a second-best world, informality also represents an important part of a country’s entrepreneurial activity. It is in this sense that we hypothesize that the size of the shadow economy may have a positive impact on economic development, where we view this term in a broader sense than a simple measure of economic growth. To test our hypothesis we examine the relationship between informality and economic development empirically. Our work involves using different measurements of informality: an indirect index on informality as well as straightforward data on self-employment collected by the International Labor Organization. We also consider necessity-based entrepreneurship, as estimated by the GEM consortium, as a new proxy of informality. Overall, we are concerned with the effects of these variables on measures of economic development, specifically, the United Nation’s Human Development Index. This is a variable that has been used successfully before as a general indicator of well-being. Our econometric results provide evidence of a positive relationship between informal entrepreneurial activity and economic development, and confirm claims that living with some level of informality may be an efficient choice.

**Keywords:** informal economy, entrepreneurship, well-being, development, global entrepreneurship monitor

**Calibrating High Performance in the Ambitious SMEs Using Entrepreneurial Assumptions**

Pat Daly¹ and James Walsh²

¹Shannon Development, Ireland
²Dept. Management and Marketing, University College Cork, Ireland

**Abstract:** Research relating to management assumptions has largely being confined to mature industries where assumptions are readily recognisable as influential business variables in finance, economics, organisational and business development. These studies have primarily considered senior managerial assumptions as part of the cognitive architecture of the firm, driving many developmental and growth processes of the organisation. This perspective of assumptions acting as intellectual assets of the organi-
The influence of a ‘Learning-by-Doing’ Program on Entrepreneurial Perceptions of Economics Students

Luc De Grez and Dirk Van Lindt
Hogeschool Universiteit Brussel, Brussels, Belgium

Abstract: Entrepreneurship, in this paper, is considered from both a narrow and a broad perspective. Hence it is simultaneously seen from the viewpoint of starting a new company and from that of working in an existing organization. The key problem that educators face is the stimulation of entrepreneurship through instruction. This instruction may consist of traditional courses or may take the form of learning-by-doing programs. In this paper the effect of such learning by doing programs on entrepreneurial self-efficacy and entrepreneurial intentions is investigated and the social-cognitive theory is used as a theoretical framework. The general research question is: Can ‘learning by doing’ programs stimulate (1) entrepreneurial self-efficacy and (2) entrepreneurial intentions and what is the relationship between this entrepreneurial self-efficacy and these intentions and (3) personal variables, (4) socio-economic variables and (5) educational background? The personal variables were the Big Five personality dimensions, future time perspective and self-management. Socio-economic variables were gender and family background. The participants were 158 economics students of a Belgian urban university college, who were working on a project in a company or who had completed an internship in an organization. A single group pretest-posttest design was used. A questionnaire was presented at the start of the program and a second questionnaire was administered at the end of the program. Results indicated that the two programs were successful in raising the entrepreneurial self-
efficacy of the participants. There was a significant increase in entrepreneurial self-efficacy between the beginning and the end of the ‘learning by doing’ program. The influence of the socio-economic and educational variables on entrepreneurial efficacy impact was very limited. The entrepreneurial intentions of the participants were increased by the program, but not significantly. Students from an entrepreneurial family had higher entrepreneurial intentions, but no higher entrepreneurial efficacy. It was already clear from the literature that the relationship of self-efficacy to entrepreneurial intentions and to other personal and environmental variables is very complicated and needs further investigation.

**Keywords**: entrepreneurship, higher education, learning by doing

### Nanotechnologies and Eco-Innovation: Creating a Regulatory Framework for Sustainable Markets

**Aurelie Delemarle**¹,³ and **Claire Auplat**²

¹LATTS/IFRIS, ESIEE Paris, Université Paris Est, Noisy-le-Grand, France
²Novancia, Paris
³Department of Business and Politics, Copenhagen Business School, Frederiksberg, Denmark

Abstract: The eco-innovation as a field of research is often ascribed to Fussler and James (1996). OECD and Eurostat (1999) defined eco-activities as ‘activities that produce goods and services to measure, prevent, limit, minimise or correct environmental damage to water, air and soil, as well as problems related to waste, noise and eco-systems’. Within this framework, Rennings (2000) argues that eco-innovations are distinctive by three elements: “the double externality problem, the regulatory push/pull effect and the increasing importance of social and institutional innovation” (2000:319). In this contribution, we aim at illustrating the strategies that entrepreneurs can develop to face these challenges. The case that illustrates this is the nanotechnology one, which possesses all three characteristics. Building on the current literature in entrepreneurship (Shane (2003), Casson (2005), OECD (2009)), we argue that entrepreneurs are not only discoverers and inventors but that they are also evaluators and exploiters of opportunities. In this sense, they may also contribute to the transformation or elaboration of market structures in order to enable innovations to find their place. Doing so, they take the role of institutional entre-
entrepreneurs: they mobilize resources to modify the institutional context in which they operate in order to suit their interest (Auplat 2009, Delemarle 2007, DiMaggio 1988). Using Callon’s concept of framing and overflowing (1998) to better understand market structure, we argue that some elements in nanotechnologies cannot be handled by the existing structure of the market. They are externalities that overflow. These externalities that are linked to sustainable development issues give opportunities to entrepreneurs to act strategically, to act as institutional entrepreneurs by organizing new frameworks or reorganizing old ones to favor the development of a sustainable market. We argue that two types of strategies are possible for them: (1) Developing new frameworks to face the overflowing. The cases of code of conducts or voluntary standards are examples of such strategies; (2) Mobilizing elements of existing but unconnected structures and rearrange them into a coherent normative structure which can be recognized by all stakeholders as that in which the market can develop. Indeed the overflowing might have already handled by another industry framework. Our paper is organized in the following manner: we first review specificities of radical innovations and introduce Callon’s concept. We then point to the specificities of nanosciences and technologies and present existing frameworks. We then discuss them and present our argument.

Keywords: nanotechnology, nanosciences, market shaping, entrepreneur, sustainable market, regulation

The Management of Waste and Sustainable Development as Eco-Innovation and Source of Performance

Carine Deslee
MCF - IMMD - Université de Lille 2 – SKEMA, Université Lille Nord de France, Lille School Of Management Research Center, France

Abstract: This idea of eco-innovation is fairly recent. One of the first appearances of the concept of eco-innovation in the literature is in the book by Fussler and James (1996). In a subsequent article, James (1997) defines eco-innovation as 'new products and processes which provide customer and business value but significantly decrease environmental impacts'. Eco-
innovation boosts economic growth whilst protecting the environment and can be a source of competitive advantage for an established firm? We consider how the device of Participative innovation (Telgborg, 2010; Durieux, 2000; Everaere, 1996) interacts with the development of eco-innovations. This form of innovation emanates from a desire at the head of the company not to book innovation to a few specialists, but to spread it among all company employees. Our question is as follows: How the management of waste and sustainable development can be a source of innovation and performance? We consider here the case of the SNCF Company and more particularly the device of Participative Innovation (PI) which can lead innovativeness towards eco-innovations. Its aim is to involve all stakeholders of the company in search of innovations, both in terms of products and services. Our interest in this research is how the SNCF company can successfully meet the challenges ahead concerning the management of waste and sustainable development as a source of innovation and performance in a context of opening of its market and competition. In this single case study, we access all different sources of data: documentation, archival records, interviews, direct observation, participant observation, and physical and cultural artefacts. More recently, the concern of sustainable development stakes have impulsed innovativeness towards the management of waste and sustainable development. We will prove through the development of several innovations - for instance noise reduction, green technology concerning high speed train compressor - in the case of the SNCF company how the management of waste and sustainable development is a source of innovation and performance.

**Keywords:** sustainable development, eco-innovation, waste management, performance, participative Innovation, SNCF (société nationale des chemins de fer français)

**Motivations and Attitudes Towards Female Entrepreneurship: An Empirical Study in Western Romania**

Anca Otilia Dodescu, Alina Bădulescu, Adriana Borza and Tomina Săveanu
Faculty of Economic Sciences, University of Oradea, Oradea, Romania
Abstract: In Romania, only few studies had challenged the existence of issues related to gender disparities in entrepreneurship - the so-called gender gap in entrepreneurship. Although the gender gap in entrepreneurship varies considerably from country to country influenced by different culture and customs regarding female participation in economic activity, a gender gap definitively exists with respect to new venture creation and business ownership (Report on Women and Entrepreneurship - GEM 2011). For specialists it is required exceeding ascertaining phase so that, based on accumulated factual material to initiate research that critically examine specific vested attitudes towards the female entrepreneurship. In recent years, the private sector has got the idea (confirmed by the results) that women have native attributes that recommend them for performance management. European statistics show that in Romania the difference in wages between women and men (functions equal) in recent years is lower than in some countries with strong democratic tradition. These figures are targeted based interpretations. Are these data a sign of real progress or is the result of continental and local economic circumstances? Our study aims to provide insight into entrepreneurial motivation and the attitude of women entrepreneurs with the empirical support for women entrepreneurs in western Romania. Moreover, according to GEM Women's report 2010, analyses of society-wide attitudes about entrepreneurship show that, overall, women in factor-driven economies are most likely to perceive opportunities in their area and have confidence in their capabilities for entrepreneurship. They are more likely to know an entrepreneur and to intend to start a business, and they have a lower fear of failure compared to women in economies with higher levels of economic development. The research activity is consisting in the research based on the survey (a first wave in 2010 and second wave in 2012) of the most significant aspects concerning the profile of the business women. In addition, it reports rates among samples from 6 different counties and initial survey findings as a comparison. Paper relevance: The paper explores the issues and challenges during times of economic crisis with respect to women entrepreneurship in Western Romania and proposes encouraging women entrepreneurship from regional perspective.

Keywords: entrepreneurship, women entrepreneurship, self-employment, mentoring, entrepreneurial field
Fostering SMEs and Innovation: Challenges for Romanian Regional Growth and Development Policy

Anca Dodescu  
University of Oradea, Faculty of Economic Sciences, Romania

Abstract: In order to demonstrate the importance of supporting SMEs and innovative process for the regional development and for the growth and recovery process, as well, after a short literature review, the paper investigates the interdependence between growth and regional development policy - SMEs sector and innovative process in EU over the past 20 years, paying particular attention to the Regional Innovation Strategies (RIS/RIS+) positive experiences in EU regions, to different regional approaches towards the governance of innovation in the current programming period – 2007-2013. Even the regional institutional frameworks and governance systems are extremely varied across the Europe, and the “systemic vision of innovation” characterizes only few regions, especially those economically successful and capital regions, the paper highlights the crucial role of regions in innovation policy, the importance of creating space for regions and firms with less absorptive capacity and the need for appropriate policy mix for stimulating both innovation and entrepreneurship. Different regional experiences presented in the first part of paper and analysis of the Romania’s situation as a modest innovator according with the Innovation Union Scoreboard 2011, lead us to the conclusion that fostering SMEs and Innovation is an emerging challenge for Romanian regional growth and development policy during the times of economic crisis. The paper concludes that a “more regionalized” Romanian innovation policy design framework is necessary, and the actual model of EU Innovation policy is not only applicable but also an urgent need in Romania. The paper presents research results afferent to the post-doctoral research project: “Growth and regional development economic policies. Challenges for Romania in the context of economic-financial crisis and European model integration”, carried out in the project “Economic scientific research, reliance of human welfare and development in the European context”, financed from the European Social Fund and by the Romanian Government through Sectorial Operational Programme Human Resources Development 2007-2013 (SOP HRD), contract number SOP HRD/89/1.5/S/62988.

Keywords: SMEs sector, innovation, regional growth and development policy, economic crisis, European integration
Entrepreneurial Capital: The Experience of Black African Migrant Women in Britain

Thomas Domboka  
Leeds Metropolitan University, UK

Abstract: Entrepreneurial resources both financial and non-financial are essential for the success of any nascent entrepreneur. In many studies, greater emphasis has been placed on financial resources like the amount of cash one has or whether the prospective entrepreneur will be able to obtain financial assistance. In the context of migrant ethnic minority groups considering starting their own businesses, other forms of non-financial resources (human capital, social and cultural capital) are equally important and can to a large extend, determine the trajectory of their entrepreneurial ambitions. Within the ethnic minority groups, access to these sources varies and generally men have greater access to these resources than women due to a number of factors such as background, tradition and culture. Most studies have focused on certain ethnic groups such as Asian and Chinese women and little is known about the effect of these factors on black African women migrants operating their businesses in the Diaspora. This limitation has resulted in little being known about their experiences of starting and sustaining those businesses. This paper addresses this gap in academic fields of entrepreneurship through an investigation of the experiences of the 1st generation migrant black African women entrepreneurs in the acquisition of entrepreneurial resources in Britain. The discussion that follows is based on theoretical and empirical evidence obtained during a recent study of 35 black African migrant women carried out in the West Midlands, United Kingdom. Preliminary findings suggests that the women have difficulty on accessing certain resources such as financial resources and the absence of close family and friends in the UK limit their ability to network and benefit from their social networks. Despite their lack of financial and social capital, they have reasonable amounts of human capital in the form of education, training, work experience and experience from previous ownership of businesses. The implications of this are that without the necessary institutional and Government support in the areas they are deficient in, they may find it difficult to start businesses that develop beyond subsistence level.
Keywords: black African migrant women, entrepreneurial capital, ethnic minority, migrant entrepreneurship

Entrepreneurship Against Unemployment: The Lived Experiences of Immigrant Entrepreneurs in Four Countries

Carolyn Downs¹ Lambros Lazuras² and Panayiotis Ketikidis³
¹Salford Business School, University of Salford, Manchester, UK
²South East European Research Centre (SEERC), Thessaloniki, Greece
³CITY College – International Faculty of the University of Sheffield, Thessaloniki, Greece

Abstract: Entrepreneurship can be seen as a potential solution for financial growth and as effective means to counter unemployment, especially in times of economic downturn. In order to alleviate the burden of unemployment and reenergize the wider economy, entrepreneurial activity is encouraged by EU policy such as the Small Business Act for Europe. The globalized economy and the existing economic crisis may lead to greater mobility of human resources and a consequent expansion in opportunities for immigrant entrepreneurship in Europe. In this context, success stories of immigrant entrepreneurs are useful as they highlight the factors that facilitate or hinder immigrant entrepreneurship which in turn provide evidence for effective policy making and, if effectively disseminated, may also provide a significant input to potential business start-ups. The present study is part of the ELIE (Employability: Learning through International Entrepreneurship) Project, and presents the lived experiences of immigrant entrepreneurs from four EU countries. Specifically, a new model for breaking down socio-cultural barriers to entrepreneurship will be presented, based upon the lived experience of immigrant entrepreneurs in four EU countries. Structured interviews were used in an overall sample of randomly selected 198 immigrant entrepreneurs living in the UK, Finland, Greece, and Poland. The findings showed that there was significant commonality in the socio-cultural factors that promote or hinder immigrant entrepreneurship in each country coupled with significant variation in the structural factors (e.g., bureaucracy) encouraging or limiting entrepreneurship. The paper will show how the experiences of successful immigrant entrepreneurs have led to the development of an innovative approach to
the promotion of immigrant entrepreneurship and discuss the benefits of the ELIE taxonomy of international entrepreneurship. Recommendations for policy making and for the development of tailor made courses for SME learners and graduate students will also be provided.

**Keywords:** immigrant entrepreneurship, interviews, case studies, success stories, employability

**Fostering Creativity and Innovation: Spheres of Interaction Influence Chance Encounters**

**Claudia Erni Baumann, Frank Zoller and Roman Boutellier**
**ETH Zurich, Technology and Innovation Management, Zurich, Switzerland**

Abstract: Knowledge creation, but also the efficient exploitation of existing know-how has become of strategic importance and a source of competitive advantage for many companies. The level of specialization has increased in many branches, necessitating an emphasis on integrating the knowledge of many people with diverse backgrounds. Communication is key for both creative tasks and the coordination of processes. Despite the introduction of a variety of different IT-mediated communication systems in the last decades, the critical importance of face-to-face communication has remained untouched. Direct encounters enable people to gain trust in one another and to transfer more than just the spoken language. An encounter between people who were not planning to meet may be especially fruitful. Such coincidental meetings, so-called chance encounters, lead to the creation of weak ties, i.e. loose relationships. These facilitate access to new knowledge while keeping the diversity of opinions high. Encounters also catalyze the transformation of loose relationships into strong ties. Strong ties are especially important for efficient coordination. Workspace design may help to coordinate work, reveal conflicting opinions to a greater or lesser degree, help management steer knowledge creation and support company-wide projects. Chance encounters especially are vital for knowledge sharing, knowledge creation and the development of new and innovative ideas. Based on two case studies in the pharmaceutical industry and in academia, this paper presents a framework that illustrates the impact of workspace design on encounters and communication. A holistic view of the design of the working environment, including its influence on
the interactions between the employees and the barriers to and enablers of the flow of information, is presented. The findings show that the architecture of a building and the design of a workplace are important factors in increasing the number of face-to-face chance encounters. Another important, yet subordinate, factor which influences the number of chance encounters is the physical proximity to other researchers and companies. However, IT is the sphere of interaction in which most of the chance encounters take place. The findings of this study can help innovation managers and architects to shape innovative activities consciously. The framework and the figures which are presented in this paper finally help us to understand where chance encounters take place.

**Keywords:** chance encounters, spheres of interaction, communication, innovation, workplace design, architecture

**Entrepreneurial Attitudes and Perceptions in a Cross-Country Setting: Evidence From GEM Data**

*Paula Odete Fernandes*¹,⁴, *João Ferreira*²,⁴ and *Cristina Fernandes*³,⁴

¹Department of Economics and Management, Polytechnic Institute of Bragança (IPB), Bragança, Portugal, ²Department of Management and Economics, University of Beira Interior (UBI), Pólo IV – Edifício Ernesto Cruz, Covilhã, Portugal, ³Polytechnic Institute of Bragança and Instituto Superior de Línguas e Administração de Leiria (ISLA), Pólo IV – Edifício Ernesto Cruz, Covilhã, Portugal, ⁴NECE-UBI (R&D Centre funded by the Multiannual Funding Programme of R&D Centres of FCT - Portuguese Foundation for Science and Technology, Ministry of Education and Science)

**Abstract:** In the late 20th century, entrepreneurship re-emerged as a key outline item of economic policy makers across Europe, both for some nations as well as for European Union as a whole. Reasonable economic growth joined with constantly high levels of unemployment encouraged expectations of entrepreneurship’s potential as a source of job creation and economic growth. In spite of this growing interest, an inclusive theoretical and empirical research is needed. This paper aims to identify groups of countries that share similar patterns regarding the characteristics of entrepreneurial attitudes and perceptions. For this objective, it was se-
lected 54 countries from the 2009 GEM survey, and a k-means cluster analysis technique was used. The results show three clusters with different entrepreneurial attitudes among the countries - high, medium and low entrepreneurial attitudes and perceptions.

**Keywords:** GEM, entrepreneurial attitudes, entrepreneurial perceptions, cluster analysis, K-means

**Potentialities of Public eProcurement as a Tool to Leverage the Policy of Innovation**

Isabel Ferreira¹ and Luís Alfredo Amaral²  
¹Escola Superior de Gestão, Instituto Politécnico do Cavado e do Ave, Barcelos, Portugal  
²Departamento de Sistemas de Informação, Centro Algoritmi, Universidade do Minho, Guimarães, Portugal

**Abstract:** Nowadays, the challenge for public organizations is the creation of public value through the adoption of information and communication technology (ICT). This is the stance adopted by the European Commission for public administrations until 2020. It is understood that technology should emerge as an endogenous factor of organizational change and not as exogenous one, fundamental to leverage change processes in public organizations. It is also considered that technology, while artefact, which aims to solve real-world problems, should be previously based on a systemic organizational intervention in order to improve its performance. The public procurement is an instrument of implementation of public policy that, within a legal context, aims to create value, contrasting with the focus on economic efficiency of the new public management. The policies of public procurement aim, not only to the efficiency (value for money), but also to the promotion of economic, social and environmental goals. There are several reasons in literature to consider public procurement as a strategic activity of governments: (i) relevant economic impact; (ii) affects the competitiveness of the country; (iii) affects the welfare of citizens; (iv) all government entities need to acquire goods and services to pursue their goals. The public procurement is seen as an instrument of policy of innovation, not only for public organizations, but also for private initiative, namely the technology market. To that end, we must think about the alignment
between public policies oriented to public value, public’s business strategies and technology and information systems. In Portugal, recent governments have been paying much attention to public eProcurement, recognizing its importance for Portuguese Public Administration renewal. These efforts were recognized by the European Commission as the best practice on eProcurement, with the entry into force of the Code of Public Contracts. However, it is considered that this merit is only due to the legal scope the mandatory adoption of electronic platforms, since it is considered that the efforts have been fallen short of what is required, compared to the potentialities found in literature. This scenario becomes more concerning at the level of local administration, particularly in Intermunicipal Communities, were the opportunities to redefine shared services whose results will contribute to the promotion of local area’s social and economic welfare development are wasted. In this context, through a literature review, this paper aims to answer to the following question: what are the potentialities of public eProcurement as a tool to leverage the policy of innovation, the policy of territorial sustainability and the technological development? As a result, we present the different approaches found in literature, presenting a wide overview of the phenomenon under study - public eProcurement -, which should not be regarded as only another more project of technology, but as an opportunity for change organizational and territorial development, namely for local and intermunicipal communities. Therefore, are presented recommendations focusing on the importance of governments and public entities transformation, tapping the ICT’s potential, through the services’ design based on a co-creation process, pursuing the transparency, collaboration and participation.

**Keywords:** public value, policy of innovation, eGovernment, public eProcurement

---

**Innovation of Decentralised Power Production: The Sustainability of Micro-Cogeneration for the Portuguese Market**

Ana Ferreira¹, Manuel Nunes¹, Luís Martins² and Senhorinha Teixeira¹
Abstract: Achieving sustainable development in the energy supply chain represents nowadays a technological challenge. This challenge requires innovation in many different aspects: development of new technologies, new laws to regulate the energy sector and new pathways to achieve more efficiency and meet the energy needs. In the building sector, an emerging pathway is the decentralized power production via small thermal units. Therefore, micro-cogeneration offers a valuable opportunity for studying the potential of Combined Heat and Power (CHP) production for a specific niche market, the residential sector. The introduction of micro-cogeneration combines the perspectives of engineering, economics and political regulations. The micro-cogeneration success is influenced by a set of social and technological developments that may support or constrain it. For instance, the development of advanced grid-access technologies, the subsidized tariffs for selling electricity to the grid and the possibility of using renewable energy sources as a fuel would simplify the micro-cogeneration installation process and enhance the possibility of attaining a return on capital investment. In fact, micro-cogeneration technologies are very efficient energy conversion devices, combining a cost effective energy generation with reduced CO2 emissions. According to a study from COGEN Europe, based on information from its Portuguese branch, for cogeneration units with an electric power below 150 kW, there is an estimated technical potential of 500 MWe. If this technical potential were totally used by micro-CHP systems, reductions of CO2 emissions of around 287 000 tonnes per year could be achieved. In addition, this technology has received a great recognition for its potential in Europe and policies are introduced for its promotion. The purpose of this research is to contribute for the identification of the potential of micro-cogeneration in the residential sector in Portugal, given the current energy scenario, the legal constraints and regulations for micro-scale CHP. Given the current technical performance, the economic constraints, the analysis of the growth drivers and market diffusion barriers of micro-CHP technologies, the economic viability of such systems in Portugal deeply depends on the investment purchase costs of these power plants. In fact, the acquisition of these systems represents a great investment for any consumer at private sector.
The consideration of the socio-environmental aspects on the cost/benefit analysis for economic viability evaluation should be included. Thus, it would be useful to include a wider policy assessment in terms of environmental impact and develop a strategy where the renewable energy carriers, energy efficiency, and energy savings are taken into account.

**Keywords**: micro-cogeneration systems; sustainability; energy efficiency

### The Influence of Innovative Capacity on Firms Performance: Portuguese and Spanish Evidences

João Ferreira¹, Mário Raposo¹ and Cristina Fernandes²

¹Department of Management and Economics and NECE – Research Centre in Business Sciences, University of Beira Interior (UBI), Pólo IV – Edifício Ernesto Cruz, Covilhã, Portugal

²Instituto Superior de Línguas e Administração de Leiria (ISLA) and Politechnic Institute of Bragança and NECE- Research Centre in Business Sciences University of Beira Interior (UBI), Pólo IV – Edifício Ernesto Cruz, Covilhã, Portugal

**Abstract**: This article analyses the importance of two types of innovation and the impact of innovation capacities on financial performance among small and medium sized enterprises (SME) on either side of the border between two countries (Portugal and Spain). Based upon a sample of 61 companies, the results show significant differences in terms of both the drivers and inhibitors to innovation in these two countries. The introduction of products into new markets only proved significant at Spanish companies whilst innovations in both products and processes are significant in both sets of Iberian companies.

**Keywords**: innovation, innovation capacities, financial performance

### Integrated Product Development in Multisite PLM Platform

Stelian-Cornel Florica and George Draghici
Politehnica University of Timisoara, Timisoara, Romania
Abstract: It is well known that the challenges in Automotive industry, namely reducing time to market, risks and development costs, could be reached thanks to innovative design methods supported by PLM technologies. Such methods are based on integrated design or collaborative engineering enabling close exchanges of data and information between different platforms and departments. The paper proposes a synthesis of the different programs on platforms who is leading to development issue during conception and manufacturing process. It presents also the development of a collaborative design platform, which aims to improve partners’ cooperation in the automotive supply chain. The paper also discusses how to include multiple expertise and integrated design in the collaborative platform. By integrating of the product conception, the technology processes and the manufacturing in the computer integrated manufacturing have been achieved a raise in the manufacturing flexibility, the reducing of the delivering times and the improvement of the realized products' quality. The present paper also presents the relevant items for building a multisite PLM platform for collaborative integrated product development based on the common researches developed in automotive industry. Based on these arguments, it is necessary to build a collaborative multisite platform. Who will integrate Teamcenter as the base software platform for documents and technical data management that is joining together different applications for collaborative product development methodology and the multisite PLM platform architecture: Virtual Design (Catia, Creo), for manufacturing and Virtual Prototyping (3D Via, Creo Mechanica, Creo Simulate), etc. The model of building such collaborative design environment was inspired by different solutions delivered by companies with great names: Dassault, Siemens, PTC, but these solutions are expensive and heavy to be implemented by small and medium companies. Our mission is to analyze the advancement and implementation of PLM platforms through research department in partnership with manufacturing industry.

Keywords: PLM, PDM, platform, Teamcenter, Dassault, SAP, Windchill, Autodesk

Engaging Communities of Lead Users With Technology: Findings From a European eParticipation Project
Brendan Galbraith¹, Brian Cleland¹, Suzanne Martin² Jonathan Wallace³ and Maurice Mulvenna³
¹Department of Management and Leadership, University of Ulster, UK
²School of Health Sciences, University of Ulster, UK
³School of Computing and Mathematics, University of Ulster, UK

Abstract: eParticipation tools aim to facilitate intrinsic engagement from communities of stakeholders and citizens to develop more effective, bottom-up and inclusive public policies, raising the potential to become an efficient engagement tool. It is argued that eParticipation tools such Electronic Town Meeting (eTM) are technological intermediaries that have the potential to efficiently engage communities of sought-after ‘lead users’ to leverage economically valuable ‘sticky knowledge’ in a public policy arena. While the lead user method has been demonstrated to be very effective (Lüthje and Herstatt, 2004), challenges remain around the sustainability of such an approach, particularly on a large-scale. Olson and Bakke (2001) point out that one of the challenges of embedding lead user processes is overcoming the perception that the method is itself “overly burdensome”, and that “it is very likely that the time and effort required to sustain the lead user method is a major obstacle to its adoption and/or regular use”. A possible mediating tool that might be able to efficiently leverage communities of lead users is the eTM eParticipation tool. This paper links the theoretical work in the field of user innovation and eParticipation. Empirical research comprised eight eTM (Electronic Town Meeting) case studies that were part of a large EC eParticipation project called PARTERRE. Findings show that the eTM has had a very positive effect on engaging lead users to reveal sticky knowledge as well as providing users benefits such as enhanced peer learning.

Keywords: user communities, innovation, eParticipation, lead users

Where are They now? A Entrepreneurship Education Follow-Up

Laura Galloway¹, Isla Kapasi¹ and Geoff Whittam²
¹Heriot-Watt University, UK
Abstract: During 2005-2006 students who studied Entrepreneurship during their degree in one of four Scottish Universities were invited to participate in a survey about their entrepreneurial intentions and their background. The paper reports, 6 years on, a follow-up to identify if and how the original respondents’ entrepreneurial intentions have developed since graduating. Using a qualitative methodology involving face to face or telephone interviews, a sample of the original study from two of the four universities has been investigated. Specific issues explored include: Examination of whether those who were measured as likely to be entrepreneurial are pursuing entrepreneurial careers. Contribution of evidence to support or not support the Theory of Planned Behaviour (Azjen, 1991) which hypothesises that ambitions are a good indicator of outcomes. Identification of the extent to which participants perceive that the entrepreneurship education they received has been valuable in their careers (whether or not they are entrepreneurs).

Keywords: entrepreneurship education, theory of planned behaviour, impact assessment

Finding Risk Factors of Innovation Activity Enterprises

Oleg Golichenko and Svetlana Samovoleva
Central Economics and Mathematics Institute Russian Academy of Sciences (CEMI RAS), Moscow, Russia

Abstract: High risk creates a powerful disincentive for innovation activity. The risk is considered not to be a threat of expected return failure but rather an obstacle to involve enterprises in innovative activity. To analyse innovation bottlenecks, a five-stage procedure is proposed. At the first stage, the system of innovation activity factors is determined. The second stage of the procedure identifies the factors that have a negative impact on innovation activity, e.g. the risk factors. The system of innovation activity factors suggests that its elements are attached to the components of the innovation process. At this stage, the set of the risk factors is distinguished according to their specificity. In other words, the factor system is divided into two non-overlapping subsystems. The first system includes factors
determined by the nature of the innovation process and is directly related to innovation activity. The other subsystem consists of the factors generated by the framework conditions of the innovation activity. At the second stage, to identify factors hampering the innovation activity, data from enterprises innovation surveys is applied. The approach of the study is of a subjective nature. Taking as a whole all the innovation projects of a firm allows one to consider bottlenecks associated with the typical behaviour of enterprises. At the third stage, the data of the innovation survey is completed by additional information to obtain indirect estimates of missing factors. To determine the relative scope and magnitude of the risk factors, their ranking takes place at the fourth stage. In addition, the mapping of risks and risk factors is the subject of the fifth stage. This stage leads to the construction of relevant problem spaces for innovation management and regulation. Under the conditions of adjustment of feedbacks between enterprises and the state, the map obtained provides opportunities for offering policy measures (at both state and enterprise levels) to mitigate, and compensate for, risks of innovation activity.

**Keywords:** risk factors, innovation activity, enterprises, hampering innovation, map

**Entrepreneurship and Innovation in Creative and Cultural Industries**

Elissaveta Gourova\(^1\), Ivan Draganov\(^2\) and Kostadinka Toteva\(^1\)

\(^1\)Faculty of Mathematics and informatics, Sofia University, Sofia, Bulgaria
\(^2\)Telecommunications Department, New Bulgarian University, Sofia, Bulgaria

**Abstract:** Many studies highlight the impact of cultural and creative industries (CCI) on growth and employment, and their great economic, social, cultural and innovative potential. Therefore, CCI promotion has been included into industrial and economic policies of several countries. Such policies, directed towards the development of regions or cities, have contributed to job creation and growth, and have assisted the local economies. CCI include sub-sectors with different size of enterprises, funding sources and business models. Many CCI enterprises need targeted support for their development and growth, however, innovation policies focus mainly on technology and research intensive ones, and do not consider opportunities
for innovation broadly in economy. The paper provides an insight into entrepreneurship and innovation in CCI, and considers some policy challenges in Europe and in Bulgaria towards CCI’s support. The main emphasis is on the need to strengthen CCI’s entrepreneurship, as this could help enterprises to efficiently carry out their activities and act as a driver of innovation. In addition, the paper considers how entrepreneurship and innovation processes in CCI could be supported, if traditional innovation support mechanisms could facilitate CCI for launching or sustaining businesses and for growth. A special focus is put on funding mechanisms in CCI and the possible role of public financial sources. Generally, appropriate support policies are considered to be necessary to establish an environment that will encourage CCI’s development.

**Keywords:** cultural and creative industries, creativity, innovation, entrepreneurship, policy support

---

**Could the Leadership Range of the Entrepreneur Help the Small Firm’s Innovation Performance Through the Employees’ Organizational Commitment?: Empirical Evidence and Gaps From the Literature**

**Izold Guihur and Gilles Marcoux**  
**Université de Moncton, Moncton, Canada**

**Abstract:** In an effort to bring the innovation capabilities of the firm from the individual innovativeness of the entrepreneur to the collective knowledge synergy of the organization, this research aims at understanding how the leadership range of the entrepreneur may foster the employees’ commitment and their contribution in knowledge to the innovation process. Most of the time, entrepreneurs are involved in small firms where they rely on their own abilities to innovate. Although, research has shown that the involvement of non-managerial employees contributed to the innovation performance of the firm, such involvement remains underused in most small firms. Indeed, small firms seldom use human resource practices that can contribute to organizational innovativeness for they are small in size and limited in resources. In general, their human resource practices are informal and strongly tied to the entrepreneur’s leadership. Past re-
search has shown that leadership influenced the organizational commitment of employees, which in turn, influenced the innovation performance of the organisation. Some suggest that transformational leadership informally sustain human resource practices such as psychological empowerment and managerial coaching that are known to support the organizational commitment of the employees. Such co-location of right and knowledge at the employees' site could then contribute to their participation in the innovation process. Because of the lack of formal human resources practices in small firms, it becomes pertinent to look at the entrepreneur's leadership in order to foster the involvement of employees in the process of innovation. Based on the review of empirical evidence and the identification of knowledge gaps, a model is proposed on the role of transformational leadership to sustain psychological empowerment and managerial coaching in order to foster employees' affective commitment in the innovation performance of the firm. Future research is intended, based on structural equation modelling of the theoretical propositions.

**Keywords:** innovation performance, organizational commitment, leadership, psychological empowerment, managerial coaching, small firm

---

**University-Industry Collaboration: Do the Characteristics of Academic Staff Matter?**

Heiko Haase¹, Mário Franco² and António Fernandes³
Abstract: It is widely recognised that a country’s development, in terms of innovation and productivity, is greatly influenced by the character and intensity of interaction between the science and business communities. Despite this importance, there is still a lack of understanding regarding the underlying factors that drive the transfer of knowledge and technology. In particular, only a few empirical studies have addressed the issue of exploring the attitudes and behaviours of academic staff in this process. This paper aims to fill this research caveat. Its main objective is to investigate the influence of academic staff’s socio-demographic and educational characteristics on university-industry collaboration. According to our objectives and to test these hypotheses, we decided on a mixed method. At a first stage, we performed a quantitative study, based on data gathered from a questionnaire applied to the overall population of academic staff at Bragança Polytechnic Institute in Portugal. The empirical study was carried out in 2011 and covered the total population of academic staff at BPI. We received 123 valid questionnaires, yielding a response rate of 23.7%. For data analysis, we applied descriptive statistics and logistic regression. At a second stage, a qualitative approach was chosen to evaluate university-industry collaboration, consisting of an exploratory semi-structured interview with the owner-manager of a recently created local spin-off from this higher education institution. The results reveal that age and gender are significantly related to the propensity to collaborate with industry. For instance, the probability of male academic staff collaborating with the business community is around 3.5 times higher than it is for females. Furthermore, we found that the level of formal qualification of academic staff and supervision of work placements had no influence, while the school/faculty academic staff belong to is significantly correlated with industry cooperation. Nevertheless, the interviewee considered the existence of curricular work placement as crucial. Overall, from our quantitative and qualitative data, there is a preference for exploitation of knowledge more in academic than in business terms. We present several theoretical and practical implications.
Competition Between Business Ecosystems: A Case Study of the Mobile Phone Industry

Takashi Hirao¹ and Yusuke Hoshino²
¹Department of Business Administration and Information, Tokyo University of Science Suwa, Nagano, Japan
²Department of Business Administration, Musashino University, Tokyo, Japan

Abstract: This study investigates why the Japanese mobile phone industry fell into the Galapagos syndrome. It focuses on competition between business ecosystems in the global mobile phone industry from 2001 to 2007, when third-generation mobile phones were released. More concretely, by exploring the relationships between mobile phone manufacturers, network operators, distributors, content providers, and users, this study examines how structural differences in business ecosystems formed in the GSM (Global System for Mobile Communications) group and the Japanese mobile phone industry, and how they influenced the subsequent disparate technological trajectories through competition between business ecosystems.

Keywords: business ecosystem, platform leader, entry barrier, technological trajectory, first-mover advantage

Networks of Growth: The Case of Young Innovative Companies in Finland

Jukka Huhtamäki¹, Kaisa Still², Minna Isomursu², Martha Russell³ and Neil Rubens⁴
Abstract: In this paper, we explore a vital part of the Finnish innovation ecosystem: young, innovative companies that are supported for fast international growth. Highlighting the importance of networks, we proceed to analyze the perceived existing relationships these companies have with other companies, financing organizations as well as with individuals taking part in their co-creation. We propose that these existing relationships, or connections, may be used to explain the firm as a resource integrator within a network, contributing to its growth and success. Overall, we propose that network analysis and resulting network visualizations can provide novel insights into the understanding of possibilities for global growth and success.

Keywords: innovation, growth, networks, network analysis, young companies

Spin-Off Performance: Entrepreneurial Capabilities and Social Networks of the Founders in the Creation Period

Thanh Huynh, Daniel Aranda and Luis Molina-Fernández
Management Department, University Of Granada, Granada, Spain

Abstract: This study examines spin-off performance from the perspectives of resource-based view and social networks of the founders. This explores the roles of pre-established factors in the financial and operational performance of a new venture. Such factors comprise entrepreneurial capabilities and social networks of the entrepreneurs before the spin-offs were established. These capabilities are constituted by technology, organizational capability, human resource, strategy, and commercial capability. The social networks are analyzed in structure, governance, and content dimensions. Based on the data from 181 university spin-offs in Spain, the paper
empirically demonstrates that the entrepreneurial capabilities positively influence the performance of the spin-offs. The social networks of the founders indirectly affect the spin-off performance through enhancing the entrepreneurial capabilities.

**Keywords:** university spin-offs, resource-based review, social networks

**An Agile Approach for Measuring the Performance of a Marketing System**

**Monica Ivercianu and Cella-Flavia Buciuman**  
*Politehnica University of Timisoara, Timisoara, Romania*

Abstract: The need of measuring marketing performance in an organization is not new. The usual approach on this regard, still used by many companies, is to analyze sales value or profit, but an increased sales value or profit may be due also to other activities than marketing. Companies are trying to use systems for tracking Key Performance Indicators for several years, but it is difficult to quantify the contribution of marketing on the overall performance of a company. The field of measuring marketing performance is still in its infancy and research is required in this respect in order to improve the way marketing is seen within a company. The purpose of measuring marketing performance is not only to identify the entire contribution of the marketing system on the overall profitability of an organization but also to compare the performance of different projects or marketing campaigns and their effects over the marketing systems. The Agile methods, such as Scrum, may be useful for the existing problems of today’s marketing managers. In the current business environment all companies need to deliver their products and services faster and with fewer resources. The Agile approach in a marketing system represents the best solution in this respect by helping organizations to adapt to the ever-evolving business environment. The Agile approach in developing a marketing activity may lead to an increased marketing performance therefore should be given more attention on the use of agile methods also in other areas not just in software development. The paper’s authors consider that a Scrum approach for marketing gives much more flexibility to a project leading to a decrease in terms of financial risks. This paper presents the following issues: the reasons why a company should consider Scrum as a
method of developing the marketing activity, a Scrum marketing framework and also a model of how the first iterations of the Scrum framework for marketing might look like was constructed as a starting point for any company that is considering a transition to agile methodologies for their marketing campaigns, the changes brought by the use of this agile method in measuring the marketing system’s performance and future research directions for using Scrum in marketing.

**Keywords:** agile method, Scrum, marketing system, iterative development, key performance indicators, marketing performance

### Prosumer Involvement in Innovation Strategies – the Prosumer Creativity and Focus Paradigm

**Monica Izvercianu and Sabina Şeran**  
**Politehnica University of Timisoara, Romania**

**Abstract:** Innovation has become a key success factor for sustainable companies that face diversity of thought, globalization of communication means and the rise of a new type of consumer: the prosumer. This concept refers to a technology savvy, that shares goods and services, wants to make his voice heard by developing ideas, products or services in partnership with companies, to become valuable through his creative offer. With the technology boom and the invention of the Web, prosumers, limited by physical boundaries went online, where they found unlimited sources for their rip, mix and burn nature. The old consumption model is dead; long live the new consumption model! The old consumption model was based on mass consumption, mass communication, a centralized economy, standardization and specialization of work places. The usual consumer was uninformed, could be easily influenced by marketing campaigns and generally bought a wide range of products. But with the rapid development of technology, a large number of consumers became knowledgeable, having global access to technology, communication and information. Precisely these changes offer a wide range of competitive advantages for open minded organizations. Therefore a threat is transformed into an opportunity, by innovating alongside their consumers. The degree of prosumer involvement into the innovation process takes time and effort, and depends on a company’s characteristics and objectives. The present article
takes into account the level of prosumer involvement and creativity output, and presents the four main strategies that have emerged: Company + Company customization, Company + Prosumer crowd sourcing, Prosumer + Company working together and Prosumer + Prosumer co-creation. These four strategies are the starting point for important decision making and complex marketing campaigns creation. The Prosumer Creativity and Focus paradigm is suited for a company’s introspection, for defining its position and customer focus, leading to an open innovation and a radical change of mentality.

**Keywords:** prosumer, co-creation, crowd sourcing, open innovation, prosumer creativity and focus paradigm, virtual knowledge broker

**The Competitive Advantage for Early Stage Entrepreneurs: The Case of Lebanon**

**Maroun Jneid**\(^1\) and **Antoine Tannous**\(^2\)

\(^1\)Doctoral school Cognition-Language-Interaction, Université Paris 8, Saint Denis, France

Faculty of engineering, Antonine University, Beirut - Lebanon

\(^2\)Marketing Department, faculty of Business, Lebanese University, Tripoli, Lebanon

**Abstract:** The startup usually has less capital, fewer scientists and engineers, less legitimacy or brand presence, fewer strategic alliances, evolving organizational structures and incomplete or even non-existent business processes. At a more abstract level, young firms have liabilities of newness and smallness, so they fail at higher rates than do their larger and older competitors. On the other hand, entrepreneurship is a driving force bringing creativity to the business and establishing a community of high-growth economy. In fact, an embracing of entrepreneurial creativity can also bring a business of wider growth, more competitive advantage, enhanced productivity, numerous jobs and wealth creation and ultimately a better quality of life for all. Increasingly, firms are attempting to design and implement entrepreneurial strategies in order to strengthen their competitive advantage and to survive the early stage. Therefore, our paper will present how Lebanese entrepreneurs are perceiving the below indicators on the reinforcement of the competitive advantage: External/Internal Information
evaluation process. Human resource management practices for SMEs. The process that begins with a new idea and concludes with market introduction in order to mark the point of difference in competition. The value chain analysis and its importance in the quest to achieve sustainable competitive advantage for an entrepreneurship; as time elapses, the value chain may lose its ability to generate value for the customer or due that to competition, demand, fluctuations and discovery of weak links. Entrepreneurship skills, marketing capability and sustained competitive advantage; hopefully to propose some new points of view in managing enterprises. Interviewed entrepreneurs have superficial and general information about the basic knowledge that allow them to take the right decisions. According to our exploratory research, we found that this basic knowledge is considered as a key factor of success to their early stage business. Thereby, Lebanese entrepreneurs should undertake training and have a follow up to all the basic knowledge to help them surpass the in flexibility related to the early stage. Entrepreneurs have weaknesses or even ignore the importance of scientific studies like SWOT analysis, interviews, qualitative and quantitative studies, offers and management to the consumers’ needs, and also how to look for competitive advantages, though these studies are essential before the formation of their ideas. Our paper is based on a qualitative approach and will be of use first for young entrepreneurs in order to leverage their awareness about the importance of the competitive advantage and to highlight the type of training to get in order to survive the early stage of their entrepreneurial process and second for the government to give a lucid vision about possible regulations to support the entrepreneurs in their early stage

**Keywords:** competitive advantage, value chain, entrepreneurs skills, information system, human resources, marketing and financial plan

---

**The Role of Planning In Innovation Success:**
**Experience of Leading Polish Enterprises**

Magdalena Jurczyk – Bunkowska
Opole University of Technology, Opole, Poland
Abstract: The article describes the role of planning in managing innovation processes; proper management is the key to final success. It was presented basing on the practices of Polish leading innovative enterprises. The research was in a form of semi-structured interviews with managers involved in innovation processes within those enterprises. The interviews were conducted directly according to a questionnaire and a fixed question list which was developed and specified during the conversations. This form of research enabled thorough analysis of the applied management techniques of at least several innovation processes in every company. Only successful cases were taken into consideration however their scope was very miscellaneous: new products, radical changes in manufacturing technology or in machine upgrade or in innovations improving customer service. Their common feature is success defined as a visible influence on company’s development gained through implemented innovation. The aim of the research was the management analysis of these kinds of processes and to define whether they were planned and how. It was also determined how managers link innovation process planning with its final success. All the findings were presented, analyzed and discussed and they led to elaborating the initial model of innovation process planning. The model is basing on two main assumptions resulting from the conducted research. The first one deals with distinguishing three categories of innovation processes which characterize particular management approach. The second assumption is directly related to innovation process planning; it indicates the necessity of successive process planning together with its progress. This also is connected with high uncertainty degree of particular actions and frequent non-linear innovation process course. Thus a three-stage planning model was suggested, the stages give more details about previously made assumptions. This approach enables setting the innovation direction and therefore is the basis for carrying out the remaining managing functions. The uncertainty degree is decreasing along with every stage of innovation process, hence the decision making process was also included. Conclusions refer to how the suggested planning approach is linked with innovation success.

Keywords: innovation management, innovation process, planning, innovation success

Ontologies Enable Innovation
Jussi Kantola¹ and Hannu Vanharanta²
¹Department of production, University of Vaasa, Vaasa, Finland
²Industrial Management, Tampere University of Technology, Pori, Finland

Abstract: In this article we explore a new kind of way to look at innovation based on the idea of “knowledge increments”. We use an existing ontology-based and fuzzy logic based approach as the guideline to exploring what kind of knowledge increments there are and how we can systematically expand our knowledge base on several levels using these knowledge increments. We attempt to show that these knowledge increments enable us to innovate on different levels, i.e. to introduce something new or better than before. The implication of this new proposed approach could be that we can develop systematic multi-knowledge-layer support systems for innovation processes and for innovators.

Keywords: knowledge asymmetry, innovation scope, knowledge increment, evolute system, ontology, fuzzy logic

Fusing Technology, Innovation and Entrepreneurship Into Postgraduate Education

Panayiotis Ketikidis, Anna Sotiriadou, Thanos Hatziaiostolou, Petros Kefalas and Adrian Solomon
The University of Sheffield International Faculty, CITY College - Thessaloniki, Greece

Abstract: For many years entrepreneurship education was mostly integrated within the academic fields of business and management. Recently though, entrepreneurship education has expanded the boundaries of purely business education to other specialised sectors such as technology and science, promoting thus the need of introducing the teaching of entrepreneurship in non-business environments. Nevertheless, most higher education institutions still provide entrepreneurship education in a business programme context. This limitation requires appropriate addressing since it creates and maintains a gap in relation to the effective knowledge transfer from the academia to the industry. The numerous challenges of infusing interdisciplinary entrepreneurial capabilities to postgraduate students must be tackled through well established mechanisms, especially for ex-
ecutive mode (one long weekend per month) programmes of study. Such mechanisms include constant curriculum development, effective quality assurance methods, innovative and flexible programme delivery and assessment models, and finally, proficiency on educational technologies that can assist all previously mentioned aspects, but can also enhance the students' learning experience. Within this context, this paper presents an interdisciplinary postgraduate programme that aims to instill and develop the habits of a mind characteristic of entrepreneurial thinking to non-business students: the MSc in Business Management and Technology. The programme is innovative and unique in its mode of delivery, quality assurance mechanisms and other core teaching and learning and administration aspects which are presented in detail. Finally, we debate on the effectiveness and efficiency of the programme by analysing the feedback from our students.

**Keywords:** entrepreneurship education, postgraduate education, curriculum delivery, south east Europe

**Developing Øresund Region’s Innovation System With Clean Technology Entrepreneurship**

Peter Kiryushin¹, Bala Mulloth² and Tatiana Iakovleva³

¹The International Institute for Industrial Environmental Economics, Lund University, Lund, Sweden
²CEU Business School, Central European University, Budapest, Hungary
³Stavanger Business School, University of Stavanger, Stavanger, Norway

**Abstract:** Although it is generally anticipated that innovation as such leads to regional prosperity (Asheim et al. 2011) there is lack of empirical evidence that confirms the direct linkage between the innovation capabilities of regions and welfare increase. It is suggested that entrepreneurship can be seen as a missing link that helps to transfer innovations into business outcomes (Braun et al. 2012). The aim of this explorative paper is to create the holistic view of the regional development, its innovation system related to cleantech, entrepreneurship and triple helix collaboration on the example of Øresund, Danish-Swedish transnational region. Eighteen interviews with regional stakeholders related to academia, business and administrations were conducted in order to understand their vision on cleantech innovation and entrepreneurship development. In addition, available sec-
Secondary data such as peer-reviewed articles, industry and governmental reports were analyzed. It was found that the process of interregional collaboration and networking for the development of research-based innovations in Øresund seems not as promising as it was expected. Our findings reveal that in order to innovations in cleantech to be utilized, the efforts of entrepreneurs are necessary to promote knowledge spillover from research institutes and “locked” systems into business environment. Upcoming economic recession, could stimulate the development of entrepreneurship, and academic entrepreneurship in particular. Increasing development of research-based innovations related to social science significantly extends the magnitude and possibility to involve academia and students in academic entrepreneurship and cleantech. It was concluded that new agenda for the interregional development could be associated with cleantech. Some of the measures that could support cleantech development include: redirection of public funds towards cleantech, development of sociotechnical innovations; cooperation between cleantech startups with non-cleantech industry, development of fiscal incentives and tax breaks as well as promotion of small and medium cleantech enterprises.

**Keywords:** regional innovation system, cleantech, triple helix, entrepreneurship, cross-border cooperation, Øresund

---

**At the Intersection of Dynamic Capabilities and Organizational Learning: Organizational Learning Capability as a Determinant of Innovation and Performance**

İpek Koçoğlu; Salih Zeki İmamoğlu and Hüseyin İnce
Abstract: Rapid technological advancement, competition at the global level, and the requirement for innovative, administrative and productive practices (Tu et al, 2006) are forcing organizations to seek out for the creative exploitation of their distinctive capabilities deriving from their knowledge intangibles (Silvi and Cuganesan, 2006). This is a quantitative study which builds upon the intersection of dynamic capabilities view (DCV) (Winter 2003) and organizational learning (Fiol and Lyles, 1985) to highlight the role of organizational learning capability (OLC) defined as the organizational and managerial characteristics, skills or factors that facilitate the organizational learning process and allow an organization to learn (Alegre and Chiva, 2008; Jerez-Gomez et al, 2005) in the enhancement of firm innovation and performance. However, the nomological relationship among these organizational practices (i.e. OLC, product, process innovation and performance) is not empirically investigated. Although studies underline that OLC will promote product innovation (Hung et al, 2011) which in turn is documented to promote firm performance, there is little evidence regarding the relationship between OLC and process innovation specifically. Therefore this research aims at empirically investigating i-) the effect of OLC on product (i.e. the technical design, R&D, manufacturing, management and commercial activities involved in the marketing of a new or improved product) (Alegre and Chiva, 2008) and process innovation (i.e. the introduction of new elements, machinery and capital equipment which aims at improving productivity, quality, and lowering cost of production) (Damanpour, 1991; Reichstein and Salter, 2006), ii-) the direct effect of OLC on firm performance, iii-) the effect of innovation on firm performance and iv-) the effect of OLC on firm performance through the mediating role of innovation. The pertinent hypotheses developed based on the literature are analyzed through the correlation and regression analyses of the 238 surveys (collected through a research in a varied spectrum of sectors in Turkey) through the SPSS 15 software. Finally results and the managerial implications are discussed.

Keywords: organizational learning capability, dynamic capabilities, product and process innovation, firm performance
The Significance of the LGBT-Community for Homosexual Entrepreneurs – Influencing Factors and Consequences

Thomas Köllen¹, Regine Bendl¹ and Sabine Steinbacher²
¹WU Vienna, Department Management, Gender and Diversity Management Group, Vienna, Austria
²Steinbacher Consulting, Vienna, Austria

Abstract: Up until now, very little research has been done on gay and lesbian entrepreneurs, and no research at all has been conducted to analyze the role of the so-called “LGBT-community” for their business models. For some homosexual entrepreneurs the “LGBT-community” is a key element of different aspects of their businesses, but for others it seems to be totally irrelevant. To contribute to a better understanding of reasons and consequences of different degrees of commercial community relations, this paper analyzes data from a quantitative survey that was conducted among gay and lesbian entrepreneurs in Austria in 2011. As crucial parameters for explaining the entrepreneurs’ community relations, two constructs are identified. Firstly, the degree in which discrimination experienced in one or more of the former jobs is the main-reason for the decision to become self-employed; and, secondly, the individual’s assumptions about the economic consequences of customers potentially finding out about the individual’s sexuality. Statistically both constructs are not correlated, and therefore they are adequate starting points for the proposed explanatory model. Besides personal, biographical and psychological factors, the latter construct is partially influenced by the general perceived climate for gay and lesbian entrepreneurs and it predicts the probability of the individual entrepreneur perceiving the LGBT community as a target market, as well as the degree of a general commercial and personal relatedness to that community. Discrimination experienced in former jobs seems to be an important reason for choosing an area of self-employment, in which it is assumed to be accepted to be gay or lesbian. Having chosen such an area of self-employment, the LGBT community by trend gains an important relevance for all business areas and also for the individual definition of business success. Furthermore, selecting an area of self-employment that is perceived as being an “adequate” area of employment for gays or lesbians, is a predictor of the personal sensation, of solidarity and belonging to that
community, and it partially defines the way in which the gay or lesbian entrepreneur economically supports the community. The different forms of community relatedness and the implication of the analyzed causalities for future research and for business practice will be discussed in the paper.

**Keywords:** entrepreneurship, homosexuality, gay, lesbian, LGBT community

**Crowdinvesting, an Innovative Option for Start-up Financing?**

**Hanno Kortleben and Bernhard Vollmar**
**PFH Private University of Applied Sciences, Göttingen, Germany**

**Abstract:** As part of the rapid expansion of the Internet and the increasing social networking associated with it, it is now possible for project initiators to raise capital from a wide group of people, not only for charitable projects but also for new businesses. This can be done quickly and efficiently through online platforms. Crowdinvesting, a new form of crowdsourcing, is a promising and absolutely innovative method of financing a start-up company through a group of investors, each carrying in only a small proportion of the total funding. The paper deals with fundamental issues of crowdinvesting as an innovative and potential alternative to venture capital. Based on an overview of German crowdinvesting platforms, which act as intermediaries between investors and start-up companies, the crowdinvesting process is analyzed. In addition, the current situation of the German crowdinvesting market is evaluated and examples of successful start-up funding via crowdinvesting platforms are given. This paper will also provide an analysis of potential conflict situations between start-up companies, crowdinvestors and employees of crowdinvesting platforms from a principal-agent perspective. The model assumes a triangular relationship between the parties, which however can always be broken down into a one-to-one relationship. The theoretically developed findings could lead platform operators to implement missing or desirable features in the near future. Crowdinvestors and entrepreneurs could also take a look at the addressed issues in order to strengthen their own decisions for or against crowdinvesting. Through the empirical investigation of some ideas it could be found, that some potential conflicts are already being solved or
mitigated through contractual arrangements or existing functionalities of online platforms. However, the actors themselves are responsible for ending other conflict situations. Such forms of mitigating behaviour are addressed in this paper. Furthermore, the paper lists up some arguments why crowdinvesting platforms may increase the efficiency of transaction between entrepreneurs and investors, before, finally, an outlook into the potential future of crowdinvesting is given. This work serves as a preliminary analysis for a more extensive (quantitative and qualitative) empirical study, in order to provide information about the decision-making behaviour of investors and entrepreneurs in the context of crowdinvesting.

**Keywords:** crowdinvesting, crowdfunding, principal-agent theory, early-stage financing, start-up financing

**Entrepreneurial Learning for Quality and Innovation – a Study in the Wellness Industry**

Yvonne Lagrosen and Stefan Lagrosen
University West, Trollhättan, Sweden

**Abstract:** The purpose of the study presented in this paper is to explore the relationship between entrepreneurial learning, innovation and quality management in the wellness industry. The theoretical framework is based on theories from quality management, organisational learning and entrepreneurship. An empirical study involving seven spa-hotels has been carried out. In-depth interviews were conducted with managers of the companies. The results indicate that innovation in the sector is closely connected to branding and that quality management largely consists of quality control of existing services. Thus, the connection between quality management and innovation is weak. Nevertheless, a network exists that might have a possibility of evolving into a learning network.

**Keywords:** entrepreneurship, learning, innovation, quality management, wellness

**Innovation and Entrepreneurship Studies: One or two Fields of Research?**
Hans Landström1, 2, Gouya Harirchi3 and Fredrik Åström4
1Sten K Johnson Centre for Entrepreneurship, Lund University, Lund, Sweden
2Institute for Small Business Management and Entrepreneurship, Vienna University of Economics and Management, Vienna, Austria
3Department of Innovation and Organizational Economics, Copenhagen Business School, Copenhagen, Denmark
4Lund University Libraries, Lund University, Lund, Sweden

Abstract: Innovation and industrial dynamics have grown in importance over the last 40-50 years as we have moved towards a more knowledge intensive society. In an effort to understand these developments in society new research fields have emerged such as innovation and entrepreneurship studies. In general, these two research fields are regarded as rather closely interlinked. In this study we elaborate on the question: Should innovation and entrepreneurship be seen as one or two fields of research? We have taken a cognitive approach in which we analyze the knowledge platforms in innovation and entrepreneurship studies. We use a methodology in which we have built a unique database consisting of all references in twelve “state-of-the-art” books in entrepreneurship. The chapters in these “state-of-the-art” books are written by experts within the field, and it can be assumed that the most frequently cited references in these chapters represent “core knowledge” in entrepreneurship research. We have analyzed the references cited in these chapters in order to identify core contributors and core works within entrepreneurship research. In addition, we have compared our results with a similar study conducted by Fagerberg et al. (2012) on the knowledge basis in the field of innovation studies. The study shows that we are talking about two more or less separate fields of research. Despite common roots in Schumpeter and some interrelated works, the two fields seem to have drifted apart over the last decades. However, there seems to be some elements of overlaps, for example, in the interest in the evolutionary approaches, and in the interest in topics such as innovation management (corporate entrepreneurship) and in technology-based ventures.

Keywords: innovation studies, entrepreneurship studies, new research fields, knowledge base
Exploring Regulatory Focus, Entrepreneurial Intention, Self-Efficacy and Entrepreneurial Skills Among Malaysian Higher Learning Institution Students

Zaidatol Akmaliah Lope Pihie¹, Afsaneh Bagheri¹ and Zaidatol Haslinda Abdullah Sani²
¹Faculty of Educational Studies, University Putra Malaysia, Serdang Selangor, Malaysia
²Inti International University, Nilai, Seremban, Negeri Sembilan, Malaysia

Abstract: Specifying factors affecting students to choose entrepreneurship as their future career path and step into the challenging process of a new venture creation has been one of the main concerns of entrepreneurship researchers, educators and policy makers. However, our knowledge is limited about the factors that enable students to become entrepreneurs. This study aims to explore the level of regulatory focus, entrepreneurial intention, entrepreneurial self-efficacy and entrepreneurial skills among students in Malaysian private higher education institutions. Participants were 391 students from private higher education institutions in Klang Valley, Malaysia where most of the private institutions of higher education are located. Of all the participants, 242 were male (62%) and 148 (38%) were female. The students were from a multicultural background and different countries. Data were collected via a questionnaire consisting of 50 items. The questionnaire is divided into five subsections including: 1. demographic information, 2. regulatory focus, 3. entrepreneurial intention, 4. entrepreneurial self-efficacy and 5. entrepreneurial skills. The students were asked to respond on a 5 point Likert scale, anchored from 1 denoting strongly disagree to 5 strongly agree. Analysis of the data indicates the majority of the students (71%) intend to become an entrepreneur and about 74% of them agreed that their immediate family will support them to become an entrepreneur. Although, most of the students (76%) had no business experiences and 68% of them had never taken any entrepreneurship courses, the majority of them (81%) believed that students should learn entrepreneurship. Moreover, the students scored moderate in all dimensions of the entrepreneurial capabilities including self-regulatory focus (mean = 3.22), entrepreneurial self-efficacy (mean= 3.21), entrepreneurial intention (mean=3.13) and entrepreneurial skills (mean=3.49).
Analysis of the data regarding gender of the participants shows that scores for male students are quite higher than their female counterparts in all dimensions of entrepreneurial capabilities. Implications of the findings for entrepreneurship education and practice are discussed in this paper.

**Keywords:** entrepreneurship education, self-regulatory focus, entrepreneurial intention, entrepreneurial self-efficacy, entrepreneurial skills

### The Size of an Enterprise and Enhancing Innovation Potential

**Ladislav Ludvík and Jindra Peterková**  
**VŠB – Technical University of Ostrava, Czech Republic**

Abstract: The recession has affected many countries in the world. It is also becoming a challenge for the enterprise sphere. It is telling practitioners and theoreticians to look for appropriate methods and management tools and also to check the idea concepts, which incline acceptable directions of further development. Despite the size of the enterprise sphere in the Czech Republic (EU), the article tries to put emphasis on questions of new innovation aspects in selected enterprises. It concerns the assessment of knowledge capital expansion and knowledge work expansion. This direction looks like a radical change in the productive powers of an enterprise. The question is, whether and to what extent it is noticeable in particular conditions. In case an enterprise focuses on realization of technical innovations, it can implement offensive or defensive innovation strategies. An enterprise, which implements offensive strategies, often dictates the direction of technical development to the whole branch. Typically it concerns market leaders or second tier firms in a certain industry branch, which offer a product of a highest level for a certain target audience. On the other hand, a company that implements defensive strategy uses the results of technical development and realizes its growing. This strategy is typically implemented by firms, which do not posses their own research and development or their level is low. They offer a product of an average technical level for a broad range of customers. Existential problems force enterprises to do quick and often short term steps, for instance reducing the costs, limiting the production capacities, relying on the size of an enterprise etc. How one can focus in such conditions and at the same time realize long...
term innovations? How do the enterprises deal with the question of asymmetry between the current situation and further development? Does a company have to be of a certain size? These are the questions, to which the authors of the article try to contribute to. To do this, they use several methods. The starting point for this is the analysis of changes in the size structure of an enterprise sphere in the Czech Republic (with regard to the EU development). The analysis is considered to be the scope for further reflections, the description and the intellectual development model, which concerns the innovation potential questions within an enterprise and its forms of enhancing, or rather managing. The selection of particular enterprises takes place and the elements of knowledge innovation model are monitored and analyzed. The work deals with both the official data (Czech Statistical Office, or rather Eurostat) and expert and experimental data.

**Keywords:** enterprise, enterprise size, innovation potential, Innovative activities, innovation strategies

### Innovation as Value key in Enterprises: The Spanish Case

**MariaJesus Luengo**¹ and **Maria Obeso**²

¹Department of Management Evaluation and Business Innovation, School of Business Studies, University of Pais Vasco, Bilbao, Spain  
²Department of Business Administration, Faculty of Business and Economics, University of Cantabria, Santander, Spain

**Abstract:** In the new knowledge economy, innovation is a fundamental tool in order to obtain competitive advantages. In this sense, we present a unique research in the area where we use data published by Spanish National Institute of Statistics and we discover a positive relationship between innovation results and external information received in enterprises by market agents (exclude customers). Enterprises around the world should incorporate innovation management in their strategies if they want to achieve success and survival. However, innovation management in organizations is difficult because innovation is an intangible active and for the same reason, empirical studies are difficult in this area, thus there is an interest in developing works with information about the topic. The relationship between results and information sources in innovation shows the
interest of Spanish enterprises in external information in order to improve their innovation results. These innovation results are really important for the development of organizations competitiveness. Therefore the cooperation of the economy agents (not customers because sensitivity tests conducted to the exclusion of this variable) involved in the value chain and the cooperation between competitors is essential with the purpose of maximize competitive advantages. As a result, with this research we want to help to enterprises in their decision making process related with innovation activity and amplifying the available information in the area at the moment. Moreover this research contributes to academic world highlighting a fundamental relationship in the innovation area across the Spanish case.

**Keywords**: innovation, market agents, competitiveness, causal relationship, external sources

**Women Entrepreneurs: Profile, Business Motivation and Success Measures in Urban and Rural context**

Carla Susana Marques¹, Gina Marques Carvalho Santos² and João Ferreira³

¹Universidade de Trás-os-Montes e Alto Douro – CETRAD Research Unit, Portugal
²Universidade de Trás-os-Montes e Alto Douro, Portugal
³Universidade da Beira Interior – NECE Research Unit in Business Sciences, Portugal

**Abstract**: The study reported on here contributes to the literature on female entrepreneurship that has emerged from the 1980s onwards. This theme is gradually becoming a major focus of attention among academics, politicians, policy-makers and other stakeholders involved in the sphere of entrepreneurship. The recent work of Carter and Shaw (2006) and Holmquist and Carter (2009) provide comprehensive and perceptive contextualisation of the key issues surrounding female entrepreneurship. Despite the fact that more recent studies of female entrepreneurship have helped to identify the factors motivating women to establish their own firms and those determining their entrepreneurial success, few analysts have attached importance to the businesswoman’s profile and the influence that urban versus rural contexts may have on start-up decisions and subse-
quent business performance and success measures. The present study attempts to fill a part of this lacuna by focusing simultaneously on these important but under-researched dimensions. This study aims to characterize and relate the profile, motivations, success measures and environment of the entrepreneurial women. Data was gathered using a questionnaire survey of urban and rural women entrepreneurs in Portugal. In order to validate the theoretical model linking the effect of psychological and cognitive factors (profile) and their self-reported motivations propensity to establish their own firms with their success measures and to the urban/rural nature of the business environment, structural equation models (SEM) with AMOS 20.0 were employed. The study suggests that the motives compelling women to become entrepreneurs in rural contexts is distinct from those underpinning the decisions of urban women i.e. that there exists a correlation between motivation, success measures and business environment that in turn positively influences a woman’s decision to establish her own firm. It also suggests that there is a correlation between cognitive factors and motivation and between these and success measures. The women entrepreneurial profile directly and indirectly influences the success measures.

**Keywords**: women entrepreneurs, profile, business motivation, success measures, SEM approach

---

**Factors Preceding the Formation of Entrepreneurial Intention: An Applied Study of Secondary School Students**
Abstract: Given the current scenario of marketplace instability and uncertainty, entrepreneurship gets posited as the “holy grail” for the majority of economies with a correspondingly greater value placed on entrepreneurial behaviour. Within this context, models based on entrepreneurial intention have been identified as an approach capable to predicting such behaviour. Based on the Theory of Planned Behaviour (TPB), this study seeks to approach entrepreneurial intention and the factors preceding the founding of entrepreneurial intention among Portuguese secondary students both studying general academic and specific professional programs and thereby establish causal relationships between psychological, demographic and behavioural factors. The methodology used was the collection of primary information through a questionnaire survey, administered to students of general and vocational courses in secondary school. In order to determine the causal relationships among different constructs, IBM AMOS 19 structural equation models (SEM) were employed. The results enable us to conclude that the entrepreneurial intention (EI) of secondary school students is influenced by such demographic, psychological and behavioural factors. Furthermore, no relationship between education and entrepreneurship was established and highlight the need for policymakers to consider the integration of entrepreneurship education in the curriculum at the secondary level. In addition, attention should be given to teacher training, that aspect, in our opinion, would be key to the effectiveness of these reforms. Finally, we can say that while it is important to educate about entrepreneurship, is more fundamentally education for entrepreneurship, creating an enterprising school culture. The thesis that entrepreneurship can be nurtured and developed through education has been gaining importance within and beyond academia. The number of investigations dedicated to study the influence of entrepreneurship education on entrepreneurial intentions is considerable and its conclusions are hard to ignore. However, the relationship between these two variables is not yet clearly established, particularly in students who attend secondary school. This study contributed to better understanding the impact that entrepreneurship education can have on students between 15 and 18 years of age.

Keywords: entrepreneurial intention, theory of planned behaviour, entrepreneurship education, secondary school teaching
Abstract: This paper analyses influence of logistic aspects on shopping behaviour of online customers and an extent of preferences of individual aspects. Attention is paid to five categories of logistic aspects. The first category analyses preferences of delivery and describes emphasis on customers according to specific types of methods of delivery. The second category includes methods of payment pursuance of online customers. The third category analyses the conditions of delivery of goods. The fourth category is connected with charges of postage and packing. The fifth category relates to future shopping plans of customers in connection with previous negative experience. The main aim of survey is to explore and describe the extent of preferences of logistic aspects influencing online customers, to ascertain preferred and also demanded methods of payment, ways of delivery of goods and connected services. The results of this survey provide recommendation for cyber entrepreneurial entities with aim to optimise services and to adapt to requests of online customers. There are five research objectives: at first to describe such logistic aspects which influenced online shopping customers decisions in terms of delivery of goods. Factually there are different preferences of various selections like mail order service, the Czech Post, the possibility of collection of goods from the store or the possibility of delivery of goods straight to home. Research shows that the preferences of forms of goods delivery and also the recommendations to the entrepreneurial entities are the important factors for online customers shopping decisions. The second objective deals with preferences of ways of payment. There are several methods of payment like pay by credit, online payment, payment via special systems like Paypal or Paysec or payment just at time on delivery of goods. The third objective analyses the conditions of delivery. Deciding factor, in the process of realization online shopping, is also term of delivery, provision of timely information about delivery of goods, provision of timely information about delivery of goods in time of ordering and also the information about exact time of delivery. The survey analyses the idea of customers about quickness of delivery of goods in days order, influence of negative experience with conditions of delivery in connection with future online shopping customers plans. The fourth objective deals with charges of postage and packing and also price amount. The fifth category includes the future online shopping customers’ plans. Finally, the descriptive statistics of logistic aspects of E-
shops is made. The research with more than 500 respondents was carried out. The questionnaire consists of detail exploration of logistic aspects so that a large number of outputs could be derived.

*Keywords*: customers, eCommerce, logistic aspects, cyber entrepreneurship, internet shopping, descriptive statistics

**Analysing Nascent Entrepreneurs’ Behaviour Through Intention-Based Models**

**Francesc Miralles, Carla Riverola and Ferran Giones**
**La Salle University, Barcelona, Spain**

**Abstract:** The extended societal interest in promoting entrepreneurship contrasts with the limited knowledge on the factors influencing entrepreneurial behaviour. Academics claim to widen the perspective to analyze those factors that can enhance the success in entrepreneurial behaviour. Following this aim, intention-based models have been developed to uncover the influential factors of entrepreneurship intention. However, prior empirical research on intention-models in entrepreneurship has mostly used university students’ samples. According to McGee et al. (2009) students’ samples possess limitations that could introduce a significant bias in the results (mainly due to their limited professional experience). The main contribution of this research lays in the refinement of intention-based models by providing a complementary work to Krueger et al. (2000). In this sense, the study follows a quantitative method in order to analyse a sample of 467 nascent entrepreneurs under the framework of two intention based models: Ajzen’s Theory of Planned Behaviour and Shapero’s Entrepreneurial Event. Due to the fact that the sample is not limited to university students, the results analysis offer a complementary understanding on the influencing factors for entrepreneurship behaviour. Results support that both models are strongly homologous although the TPB offers a slightly higher R2 of entrepreneurship intention. TPB’s subjective norms and SEE’s propensity to act constructs failed to add significant information to the model comparison. In addition, an analysis through some personal traits and situational variables of the respondents shows significant differences among the structural models of the subsets. Finally, this research provides valuable insights for governmental entities, training centres, en-
entrepreneurship foundations, venture capitalists, and other consultants or advisors who should benefit from a better general understanding of how intentions are formed.

**Keywords**: entrepreneurship intention, theory of planned behaviour (TPB), Shapero’s entrepreneurial event (SEE), nascent entrepreneurs

**Design as a Strategic Resource: Results From a Portuguese Online Questionnaire**

José Monteiro-Barata  
Economics Department, Instituto Superior de Economia e Gestão-Technical University of Lisbon (ISEG-UTL), Lisbon, Portugal

**Abstract**: This paper is an output of a Portuguese public research project (Fundação para a Ciência e Tecnologia - FCT): DeSID - “Design as a Company’s Strategic Resource: a Study of the Impacts of Design”. The DeSID research project was created with the main purpose to make a diagnosis of the use of design inside the Portuguese manufacturing Industry, since that characterization was never done. This synthesis refers to one of the activities of that research project: the National Survey to the Portuguese Manufacturing Industry. “DeSID survey” allowed us to understand in broaden terms the way business field evaluates the role of design and designers. The main drivers for the use of design in the companies are the “image/reputation” followed by the “innovation ability”. The relationship between design and innovation is relevant for the majority of firms. Design is a fundamental driver of the innovation dynamics. The intensity in design in the Portuguese manufacturing industry (total value spent on design activities as a percentage of net sales) was 0.69% (2007). From a brief analysis of the survey results it is also possible to acknowledge that Portuguese firms in general still underestimate the potential of design as a strategic resource. The Portuguese design development sooner or later will claim a notion and the development of a “Design National System”. The paper, in substantive terms, will include the following sections: i) General characterization of the respondent companies; ii) Perception of the importance of the use of design; iii) Identification of the drivers and enablers of design; iv) Design expenditures; v) Design, Product and Innovation Dynamics; vi) Evaluation of business performance with the use of design; and vii) Barriers to
the use of design. After this introductory work, some of these topics and its interrelationships could be deeply analysed with the use of multivariate data analysis.

**Keywords:** strategy, design, innovation, data analysis

**Clustering Entrepreneurship Aspirations: Innovation, Growth and International Orientation of Activities**

Alcina Nunes and Carlos Balsa  
Polytechnic Institute of Bragança, Bragança, Portugal

**Abstract:** It is sometimes argued that nations differ in their underlying entrepreneurial spirit. So, in recent years, more researchers started being interested in the analysis of entrepreneurship across countries and regions. Some of the international literature on the subject recognises that regional variation in entrepreneurship is significant and persistent, and often even exceeds national differences. Associated with entrepreneurship comes the concept of innovation. Indeed the seminal work of Schumpeter establishes conceptually the entrepreneur as an innovator. Nowadays the belief that innovation has an important role in the international entrepreneurial activity rate has been theoretical and empirically analysed/tested. Innovation allows the creation of new firms and/or ensures the survival of the existing ones. In both cases, it generates growth. Applying the statistical technique of cluster analysis to a dataset gathered by the Global Entrepreneurship Monitor (GEM) and that includes, in 2010, 59 countries; this paper intends to group countries into clusters regarding their entrepreneurial activity and the aspirations of national entrepreneurs concerning innovation, business growth and international orientation of their activities. It aims to identify and characterise different international entrepreneurial aspiration profiles. Note, however, that cluster analysis should be considered an exploratory data-analysis technique that is intended largely for generating rather than testing hypothesis. So this paper aims to divide the set of analysed countries in groups that share similar aspirations regarding the previous mentioned entrepreneurial aspirations. This is particularly important not only because the achievement of a relevant national entrepreneurship rate depends on the social and economic business envi-
environment but also because, despite the international attention given to entrepreneurship, it is not known if it is a global phenomenon or if there are particular regions where the entrepreneurial activity is characterised by special patterns of entrepreneurship aspirations. The use of an international comparable entrepreneurship unique dataset allows cross-country comparisons and therefore to reach the proposal goal.

**Keywords:** entrepreneurship, innovation, international economy, cluster analysis, GEM

**Cooperation for innovation: Evidences From Southern Europe Countries**

Sandra Nunes¹, Luísa Carvalho² and Teresa Costa¹  
¹Economics and Management Department, Business School, Setúbal Polytechnic Institute, Portugal  
²CEFAGE- University of Évora, Portugal and Economics and Management Department, Business School, Setúbal Polytechnic Institute, Portugal

**Abstract:** Innovation is nowadays an important source of competitiveness for several firms, however only some firms recognize the importance of cooperation to innovation. Recently, in the course of depressive economic cycle, firms from countries of Southern Europe faced enormous difficulties in world market. Cooperation to innovation could promote incentives and welfare effects, minimizing transaction costs and exploiting complementary know-how between partner firms. This paper studies the cooperation for innovation, in countries of Southern Europe (Portugal, Spain, Greece and Italy), analysing how R&D, incoming spillovers, public support, appropriability of innovation, financial constraints to innovation, firm size and sector can contribute to cooperative behaviour of firms. The literature review evidence that cooperation could include, sharing R&D cost and risk, the reduction of duplication spillover internalisation and introduce others benefits. This paper use Community Innovation Survey (CIS 4) micro-data for the four countries of southern Europe and apply a logistic regression in order to study cooperative behaviour for innovation. We believe that the results about these countries provide important clues concerning different arrangements of cooperation between firms and highlight some innovation patterns between studied countries.
Creativity: An Application to the Metropolitan Area of Porto

Carla Oliveira¹, Sandra Silva¹,² and Isabel Mota¹,²
¹Faculdade de Economia, Universidade do Porto, Portugal
²CEFUP, Portugal

Abstract: The concept of creative economy is associated with the knowledge economy, identifying creativity as a low cost input in the production of goods and services, which generates wealth. Creative Cities emerged as the territorial representation of the knowledge economy illustrating the importance of creativity and economic growth in developing regions. Cities have always been the cradle of industry and activity, being attractive places where people want to stay and instruments of territory development. However, not all cities are spots of creativity; additionally, there are some features that increase cities’ abilities to succeed as Creative Cities. On one hand, the territory characteristics are one of the features that influence the merging of creative spots and, on the other hand, creativity change territories increasing their attractiveness. Creative Indexes are important instruments to measure the creativity of cities and to identify strategies to increase it. In this paper, we develop a Composite Index of Creativity, in order to assess the creativity of territories and apply it to the Metropolitan Area of Porto, which is considered an important focus of Creativity in the North Region of Portugal. Due to unavailable data, we applied the index using municipalities’ data, knowing that the 16 municipalities have 15 cities, moreover one in each. The application of the Creativity Index to this area reveals that within its limits there are different levels of a Creative Economy emerging and different spots of creativity to be increased.

Keywords: creative economy; creative cities; composite indexes

SPIN-UP – Creating an Entrepreneurship Coaching and Training Program for University Spin-Offs

Manuel Oliveira¹,², João Ferreira¹, Alexandra Xavier¹, José de Sousa¹, Gonçalo Meireles³, Milton Sousa⁴, Dariusz Tzmrielak⁵, Sanna Tomperi⁶,
Pekka Salmi⁶, Marko Torkkeli¹⁶, Arthur Tolsma⁷, Qing Ye⁸ and Marina van Geenhuizen⁸
¹INESC TEC (formerly INESC Porto), Faculty of Engineering, University of Porto, Rua Dr. Roberto Frias, Porto, Portugal, ²Department of Economics, Management and Industrial Engineering, University of Aveiro, Campus Universitário de Santiago, Aveiro, Portugal, ³Advancis Business Services, Porto, Portugal, ⁴Leaders2Be, The Netherlands and Portugal ⁵Lodz University, Poland, ⁶Lappeenranta University of Technology, Department of Industrial Management, Finland, ⁷Independent consultant, The Netherlands, ⁸TU Delft Faculty of Technology, Policy and Management, The Netherlands

Abstract: This SPIN-UP project has been funded with support from the European Commission and is a study involving research performed in 4 countries: Finland, the Netherlands, Poland, and Portugal. The SPIN-UP research question is: What sort of entrepreneurship training and coaching program will contribute to the development of key entrepreneurial skills, both technical and behavioural, essential to enable and leverage university spin-off (USO) growth? The aim of the SPIN-UP study was to picture key entrepreneurial skills and their contribution to the performance of university spin-off firms, as well as missing skills, in order to develop an effective training and coaching program. USO, entrepreneurial firms that bring university knowledge to market, do not traditionally grow very much and we sought to contribute to a countering of this trend. To avoid a large differentiation in firm age, firm age limits were set at 2 years (lower limit) and 10 years (higher limit). 10 years was however used flexibly, particularly in those sectors where development and bringing products to market goes relatively slowly, like in the medical life sciences and material (nano) science (15 years used as the maximum in these cases). The research to date has involved a total of 64 interviews and questionnaires in the four countries mentioned above. The preliminary comparative analysis revealed that the four countries studied show somewhat different skill sets, meaning that we may still be in a World where differences still matter (Ghemawat, 2007). For example, spinoffs in Finland tend to be strong in skills dealing with intellectual property, which is the opposite of Poland, the Netherlands and Portugal. Portugal on the other hand appears to be quite strong in operations management skills as compared to the rest of the sample. The skill set of the Netherlands emphasized strength in skills related to the building of social and business networks, a theme which is very in vogue in the cur-
rent business and management literature. However, spinoffs in the four countries did show some similarities, tending all to be strong in innovation skills. As concerns future training for USO our research indicates that this should focus on: gaining financial capital, internationalization and sales (top 3 missing skills hampering growth). More practical “hands-on” type entrepreneurship training, such as that using role-playing enriched by the sharing of entrepreneurial participant experiences, may be seen as being appropriate for USO. Work by Ghemawat (2001) (CAGE Model for internationalization) and Cialdini (2007) (principles of persuasion to be used in sales) may serve as a theoretical basis for such training.

Keywords: entrepreneurship, innovation, coaching, training, university spin-off

Measuring Eco-Innovation and Corporate Sustainability Performance: Examples from Romania

Dorel Mihai Paraschiv, Estera Laura Nemoianu, Claudia Adriana Langă and Roxana Voicu-Dorobanțu
The Academy of Economic Studies, Bucharest, Romania

Abstract: To achieve corporate sustainable performance, a company must go beyond the simple compliance to the legislative requirements. In this context, eco-innovation plays a key role in achieving global sustainability goals and objectives of organizations, especially those related to the environmental component of sustainability. While most researchers have given considerable attention to the various methods and tools directed at measuring eco-innovation and sustainability at the macro-economic level, very few studies deal with these metrics at the micro-economic level. In this context, the purpose of this paper is twofold. Firstly, after a thorough literature review, it will offer a clear presentation of the main indicators used in assessing corporate sustainability and environmental performance of organizations, with an emphasis on eco-innovation. Secondly, the paper will harness the results of a questionnaire-based study developed by the authors among companies operating on the Romanian market to identify their preoccupations for eco-innovation and for assessing environmental
performance via indicators. The authors also provide examples of environmental sustainability metrics from the analysis of sustainability reports of several sample companies active in the construction, oil and gas, fast moving consumer goods, telecommunications and banking sectors. These serve to illustrate the diversity of sustainability metrics used to assess environmental performance, rather than as examples of best practice. The exploratory questionnaire-based research findings confirm the international sustainable development trend, as an increasing number of large, medium and small enterprises active in Romania started to incorporate sustainability into their business strategies. However, many of the organizations participating in the research do not assess the environmental performance and have no clear evidence of the costs involved, nor a precise monitoring of the results associated with the implementation of sustainability measures in the business strategy. Therefore, the authors argue for the importance of creating a framework and selecting appropriate indicators that quantify sustainability and environmental performance, and make suggestions for developing such a framework. The value this paper lies in approaching an innovative subject, in the context of a lack of consolidated data on eco-innovation and corporate sustainability metrics. Furthermore, the article has numerous practical implications, as it represents a useful source of information for practitioners interested in the field.

**Keywords**: eco-innovation, sustainability, environmental performance indicators, corporate sustainability performance, eco-innovation metrics

---

**The Innovation Potential of Social Enterprises**

Ruslan Pavlov

Central Economics and Mathematics Institute, Russian Academy of Sciences, Moscow, Russia
Abstract: Some examples of innovation activities of social enterprises are studied in this paper. Using the analysis of existing literature on this point, it was found that the overwhelming emphasis was laid on social innovations and the potential to generate technological innovations by social enterprises didn’t draw due attention of the scholars. Social enterprises have lots of advantages, as compared with conventional business enterprises, as they present to be more flexible, more adaptive, more mobile and prove to have a longer business life. An attempt to prove that they have an ability to generate technological innovations at a higher rate, than business enterprises, because of their broad capacity in diversity management, is made. Based on the implications resulted from the case analysis, the obstacles which prevent social enterprises in Russia from their technological development are specified.

Keywords: social enterprise, diversity management, innovation, technological development, nonprofit organization

Cultural Change Through Lean and Learning Mechanisms to Improve Organisational Performance in the Construction Sector

Tiago Pinho¹, Ângela Silva², Cristina Rodrigues³ and António Amaral³
¹School of Business Studies, Viana do Castelo Polytechnic Institute, Valença, Portugal
²Lusíada University, Vila Nova de Famalicão, Portugal
³School of Engineering, Minho University, Braga, Portugal

Abstract: This paper aims to point up the critical topics that need to be addressed towards a fully implementation of lean management as well as the adoption of learning mechanisms and information and communication systems in order to attain organisational differentiation through performance enhancement and integration of management practices that favour business sustainability. Firstly, we will try to explain the complexity of a construction project and how lean principles can be adapted to the construction industry, as well as some practical examples of the adoption of new technologies. Then, it will be explained how knowledge management and learning mechanisms can be critical in attaining a competitive advantage in this sector. Finally, a conceptual model will be presented based on
the literature studies and the main results obtained from the focus group conducted with project managers from the construction area.

**Keywords:** lean construction; organisational learning; information and communication technology; cultural change; organisational performance

**Dynamics of Innovation, Contributions to Differentiation: Analysis of Innovation Strategies Vinibrasil of the Emerging Cluster of Winemaking in the Valley of San Francisco (Brazil)**

Valdner Ramos¹, Deranor Oliveira¹ and Valdenor Clementino²
¹College of Management, University of Vale do Sao Francisco, Petrolina, Brazil
²Department of Management, University of Évora, Évora, Portugal

**Abstract:** This paper aims to investigate the interactions between the strategic process and the one of innovation, observing, in particular, how the mechanisms of decision making and the strategic actions of innovation contribute to the formation and formulation of different competitive strategies. This framework is proposed for analyzing the innovation strategic actions of ViniBrasil, given the challenges posed by the intensification of competition in the domestic and international wine markets. The study has a qualitative-exploratory character and used, as reference of the framework, the model developed by Sarkar (2007). The data arise from archival research and from a questionnaire applied to the key managers of ViniBrasil. The survey used is divided into two parts. The first one contains three blocks of closed answers (data analysis of characterization of the company, sociodemographic data, and about the ability to innovate and use ICT). The second part consists of four blocks of responses, with a metric scale of measurement, in order to measure a set of latent variables. The most significant findings relate to the strategic actions of innovation applied to the production process, including the conversion of vineyards, the adequacy of the conduction and irrigation system, the production of differentiated wines, the winery modernization and to the business model, with emphasis on new marketing standards focused on domestic and foreign markets. The ViniBrasili is located in Fox Archetype Space, both at the level of product as of the production process. This space is characterized by the existence...
of a large number of competitors, operating in an environment of much competitive pressure and high degree of differentiation/innovation. Innovations occur in a continuum, ranging from the introduction of new products and processes, significant improvements in marketing and in the business management itself, factors which generated different impacts on the sustainability and maintenance of the competitive advantages of business.

**Keywords:** innovation, differentiation, strategy; ViniBrasil, Vale do São Francisco

### Financial Literacy of University Students

**Cristina Rodrigues¹, Filipa Vieira², António Amaral² and Vitorino Martins³**

¹Algoritmi R&D Centre, Engineering School, University Minho, Campus Gualtar, Braga, Portugal  
²CGIT Centre, Engineering School, University Minho, Campus Azurém, Guimarães, Portugal  
³University of Porto School of Economics and Business, Porto, Portugal

**Abstract:** The current financial crisis highlights real problems profoundly related to the level of financial knowledge. Some studies suggest that many individuals, including small business owners, do not have adequate financial skills to be able to handle their finances. The term "financial literacy" summarizes the set of knowledge, skills and attitudes necessary to enable recognition and understanding of the foundations of personal finance. Informed and literate individuals are able to make responsible decisions. Our paper presents the preliminary results obtained with the Portuguese StudentFinance2012 survey. A total of 612 university students from seven different institutions agreed to participate and complete the survey. The sample has an average age of 23.67 years and is gender balanced. Students were classified in three course areas such as engineering, business and management, or design and tourism. Most respondents frequent a degree course, being the university mostly a public institution. A majority of our students has solely funded by their parents or family. By analyzing the total amount of financial products, we obtained an average of 2.57 financial products by student. To analyze financial literacy, our study developed measures such students’ financial involvement, financial knowledge and parents influence and explore it as a function to issues such
as age, gender, course area, course type, type of university and parental funding. The results suggest that the financial involvement of students evolves over time (as age increases, the financial involvement also increases) and confirm significant dependence with demographic variables such as gender, age, or course, among others. For the financial knowledge the results are encouraging, with students to show interesting levels of knowledge. We also identified relations of dependence with age, gender and course, among many others. Parental influence was analyzed by the level of agreement with statements related to the perceptions of the influence and behavior of parents about money, budgeting, saving and paying bills. The main results indicate that parents are a positive influence and that students are experiencing a financial behaviour that integrates the family.

Keywords: financial literacy, financial involvement, financial knowledge, parents influence, education, survey, university students

Social Networks and Innovation Strategies in Knowledge-Intensive Services: The Case of Software

Isabel Salavisa and Cristina Sousa
Instituto Universitário de Lisboa (ISCTE-IUL) and DINÂMIA’CET-IUL, Lisbon, Portugal

Abstract: This paper deals with the role of social networks in the innovation strategies of the software for telecommunications sector; although a relatively small segment in the global software industry, this is one of the most innovative. In fact, its products address the demand of the sophisticated and fast changing telecommunications industry, with mobile communications at its core. The literature has stressed the relevance of social networks for the innovative process of knowledge-intensive firms. Most of these firms, and particularly small and medium sized firms, depend on external resources to complement their built-in capabilities, partly accessed via non-market means. As a consequence, networks have become increasingly crucial for the access to these resources, which are quite diversified. Most of the extant studies deal with aggregate networks; however, the diversity of resources is expected to affect the forms of access, and therefore the configurations of social networks. In this paper we study disaggregated social networks in two groups of firms, more radical innovators vis-à-
vis incremental innovators, according to the type of resource being accessed i.e. technological knowledge and complementary assets. Technological knowledge has become complex, fast changing and distributed among various players. In the case of software, firms have to interact not only with other domestic and multinational firms in the same sector and universities, but also with customers; the latter are considered a major source of innovation. Complementary assets such as capital, information on potential opportunities, access to markets and highly skilled personnel have become more specialized and sophisticated. Such resources are not totally obtainable through anonymous and stand-alone market transactions. Their access requires interaction, information exchange and very often trust. Drawing on original information collected through a detailed questionnaire, we analysed a set of 29 firms producing software for telecommunications in Portugal, split into two sub-sets according to the range of innovation (more radical vs. more incremental). We looked for the main factors related to the configuration of the networks developed (composition, structure, size, number of components) to explain the differences in the innovation strategies adopted by the two groups of companies. Results confirm the existence of contrasting network configurations of radical versus incremental innovators and the value of a fine-grained approach. Our approach can therefore contribute to the debate on the most favourable network configuration for innovation: this depends not only on the range of innovation but also on the resource that is exchanged through the relation.

Keywords: social networks; innovation; software sector; knowledge networks; complementary assets networks

The Influence of the Global Crisis on Small Firms Active in the Romanian Pharma Industry. Lessons Learnt About Entrepreneurship and Management Education

Cezar Scarlat
University Politehnica of Bucharest, Romania
Abstract: The current economic and financial crisis impacted national economies, business sectors and companies. However, the impact of the crisis on a specific national economic system varies largely, case by case, both as intensity and lag time. The purpose of this paper is to present some of the results of the research conducted in 2010 on how the economic and financial crisis has impacted on the management of the Romanian small and medium size enterprises (SMEs) active in the pharma industry (pharmacies) of which key elements are their short-term decision making; strategy changes; how fast their managers reacted and how the crisis impact on the firm’s overall performance is perceived. The article reports some results in line with the author’s previous research on firms’ management and entrepreneurial spirit in Romania, bringing original elements and adding value. The research methodology was survey-based. A questionnaire was developed, data being collected during August-September 2010. 357 pharmacies were surveyed from cities with more than 100,000 inhabitants across Romania. The research offers interesting results – related to the companies’ management. In spite of early reactions to the global crisis, a lag time up to two years was identified. One surprising output is that SME managers – regardless of their entrepreneurial skills – display a certain lack of management knowledge and culture as well as a weak understanding of what strategic management actually is. Hence, the evident outcome is that there is a need for solid management education, and training programmes in subjects like decision making, strategy, and entrepreneurship. The research conclusions are useful for both scholars and practitioners: entrepreneurs and company decision makers, as well as for management training institutions, universities and education policy makers who are participating in a life-long learning process striving to develop the managerial capacity of Romanian firms active in pharma industry.

Keywords: global financial crisis, business strategy, decision making cycle, lag time, Romanian pharma SMEs, management and entrepreneurship education and training

Branding: Improving the Innovative Capacity of Greenhouse Horticulture SMEs

Henk Schout and Pepijn van Willigenburg
Abstract: The Dutch greenhouse horticulture industry has a reputation to uphold of world leadership in high-tech innovation. The sector is characterized by innovation in production systems and automation, reduction in and greater efficiency of energy consumption as well as sharing limited space. Aspects of marketing and product innovation are more underdeveloped. In this paper we first try to establish a pattern in the ways that entrepreneurs in the Dutch greenhouse horticulture industry innovate, where their sources of information to innovative ideas lie and whether these (open) innovation strategies contribute to innovation performance. We continue by focusing on the question how the grower in the greenhouse horticulture chain can create added value and gain competitive advantage through market-driven innovation strategies and to what extent collaboration with others, both in gathering relevant information and in the implementation of innovative strategies, has influenced organisational success. The paper introduces an innovation and entrepreneurial educational programme. This programme aims at strengthening multidisciplinary collaboration between enterprise, education and research. Using best practice examples, the paper tries to identify barriers for market-driven innovation by looking at the resistance from the existing chain, the amount of support from (local) government, the knowledge infrastructure, knowledge development and knowledge dissemination. The paper illustrates how companies can realize growth and improve the innovative capacity of the organization as well as the individual by linking economic and social sustainability. The paper continues to show how participants in the programme develop competencies by means of going through a learning cycle of single-loop, double-loop and triple loop learning: reduction of mistakes, change towards new concepts and improvement of the ability to learn. Furthermore, the paper discusses our four-year programme, whose objectives are trying to eliminate interventions that stimulate the innovative capacity of SMEs in this sector and develop instruments that are beneficial to organizations and individual entrepreneurs and help them make the step from vision to action, and from incremental to radical innovation. Finally, the paper illustrates the importance of combining enterprise, education and research in networks with a regional, national and international scope, with examples from the greenhouse horticulture sector. These networks
generate economic regional and national growth and international competitiveness by acting as business accelerators.

Keywords: branding, innovative capacity, value creation, marketing, greenhouse horticulture

Impact of Innovations on Occupancy Rate of Hotels: A Comparative Study of the Intrapreneurial Perspective

Krishna Shetty and Ramamithram Gopal
1BuntSangha’s U.K.S. Institute of Management Studies and Research, Mumbai, India
2Pd. Dr.D.Y.Patil University, Department of Management Research, Navi Mumbai, India

Abstract: The Hotel Industry forms a major chunk of the hospitality sector. It is a category in the services sector which contributes substantially to the GDP of a country. What are the drivers for competitive advantage in the hotel industry? It is now widely accepted that to keep afloat in the competitive scenario, hotels have to constantly resort to technological and other innovations to keep one step ahead of the competition and to guarantee a reasonable return on investment. Innovation is a word that has been talked about in most sectors of the economy, especially in sectors like biotechnology and the pharmaceutical industry. However, is innovation as important in the services sector, more specifically, the hotel industry? Is innovation a factor of sustainable competitive advantage in the hotel industry? What is the effect of innovation on the occupancy rates in the hotels? The managers of the hotels, who are the entrepreneurs, are the ones who are in the best position to judge the answers to all these questions. They are the important link between the hotel entrepreneur and the end customer. They have a bird’s eye view of the whole industry scenario. The research seeks to study and analyse these aspects from the perspective of the management of the hotels. Furthermore, does the perspective of the management differ depending upon the grade of the hotel concerned, the designation of the respondent manager, the type of destination or the country? A comparative study of the managerial perspective in relation to these factors was conducted. For the purpose of research and comparative
analysis certain key cities were selected from India and Thailand. The research is expected to help the hotel industry and the management of hotels in getting pointers for improvement in overall performance and for training managerial staff, hence resulting in a contribution to the welfare of the economy.

Keywords: innovations, hotel industry, managerial perspective, occupancy

Creating Entrepreneurial Activity: Russian University Case Study

Dmitriy Shishkin and Natalia Molodchik  
State National Research Polytechnic University of Perm, Perm, Russia

Abstract: The pivotal role that universities play in the knowledge economy results from the changing economic and political environment. These changes put new requirements to the higher education. The ability of countries to grow and prosper will, thus, depend critically on the ability of their universities to adjust to their new role. We investigate the attempt of State National Research Polytechnic University to influence regional economic development by becoming a more enterprising institution. We make an attempt to reveal the Triple Helix model in Russian context. Herewith the main object of our research is the University, which has to change its mechanisms of development in order to stimulate the enterprise of the region. The research task is finding out the mechanisms to develop entrepreneurial environment in the University. The case study is based on a qualitative approach. First, we studied the universities, which are considered to exercise a significant influence on regional economy in different countries which resulted in collecting typical problem & best-practice database for making further comparative analysis. To collect data at the university level we reviewed the basic activities of the University and interviewed regional experts (according to the Triple-Helix Model to obtain the descriptive characteristics and the vision of the university entrepreneurial environment in the regional context. A focus group study of students was performed to learn their career expectations, attitudes towards entrepreneurship, and motivation to engage in entrepreneurship. Awareness of the problems faced by students has allowed us to approach the development of practical mechanisms for the creation of entrepreneurial activity at the
university with the expertise and databases of the best practices mentioned above. Key findings identify core elements of entrepreneurial infrastructure and the mechanisms for the development of entrepreneurial activity integrated in a complete model. The evidence is represented to establish the mechanisms of intrinsic-based motivation to engage in entrepreneurship, as well as entrepreneurial education. Our research proposes the organizational and motivational model of entrepreneurial environment in the university. The model shows the validity and has been applied in practice. The proposed arrangements affect intrinsic motivation and culture, which have a delayed effect, therefore changes must be durable. Despite the fact that the model gives consideration to the Perm regional context, it can be adopted for other research universities.

**Keywords:** entrepreneurial activity, entrepreneurial culture, students, university

Crowdsourcing Innovation: A Strategy to Leverage Enterprise Innovation

Cândida Silva¹ and Isabel Ramos²
¹School of Management and Industrial Studies, Polytechnic Institute of Oporto, Vila do Conde, Portugal
²Center Algoritmi, School of Engineering, University of Minho, Guimarães, Portugal

**Abstract:** Innovation is recognized by academics and practitioners as an essential competitive enabler for any company to survive, to remain competitive and to grow. Investments in tasks of R&D have not always brought the expected results. But that doesn’t mean that the outcomes would not be useful to other companies of the same business area or even from another area. Thus, there is much knowledge already available in the market that can be helpful to some and profitable to others. So, the ideas and expertise can be found outside a company’s boundaries and also exported from within. Information, knowledge, experience, wisdom is already available in the millions of the human beings of this planet, the challenge is to use them through a network to produce new ideas and tips that can be useful to a company with less costs. This was the reason for the emergence of the area of crowdsourcing innovation. Crowdsourcing innovation is a
way of using the Web 2.0 tools to generate new ideas through the heterogeneous knowledge available in the global network of individuals highly qualified and with easy access to information and technology. So, a crowdsourcing innovation broker is an organization that mediates the communication and relationship between the seekers – companies that aspire to solve some problem or to take advantage of any business opportunity – with a crowd that is prone to give ideas based on their knowledge, experience and wisdom. This paper makes a literature review on models of open innovation, crowdsourcing innovation, and technology and knowledge intermediaries, and discusses this new phenomenon as a way to leverage the innovation capacity of enterprises. Finally, the paper outlines a research design agenda for explaining crowdsourcing innovation brokering phenomenon, exploiting its players, main functions, value creation process, and knowledge creation in order to define a knowledge metamodel of such intermediaries.

Keywords: open innovation, crowdsourcing innovation, innovation enterprise strategy, collective intelligence, crowd wisdom

Innovative Competencies of Leading in a Complex World

Aelita Skaržauskienė and Steponas Jonušauskas
Faculty of Social Informatics, Mykolas Romeris university, Vilnius, Lithuania

Abstract: Today’s organizations change the focus from the ineffective bureaucratic models to more flexible communities of professional workers such as online communities, virtual self-managing teams, networked organizations etc. Such extreme challenges require radical solutions and the transformation of leadership development. In this context it’s critical to understand what are the innovative key competencies to be developed in order to deal with the fluidity and complexity of the world. The changing conditions in global environment require systems thinking, flexibility, networking and collaboration, innovation and the courage to embrace uncertainty and ambiguity. The paper aims to clarify the relationship between intelligence competencies and leadership performance in public administration organizations. The relevance of Systems thinking and other intelli-
gence competencies as innovative future competencies was disclosed in the context of leadership in the complex world. The paper follows a quantitative research approach. Firstly, exploratory factor analysis was employed to assess dimensionality of scales. Secondly, relationships between variables were explored using Spearman’s correlation. Thirdly, multiple linear regression was run to test the hypothesized model of relationships. The total sample consists of 120 random selected respondents in public administration organizations in Lithuania. Based on the analysis and synthesis of the scientific literature a conceptual model of relationship between intelligence competencies and leadership performance was developed. The theoretical model was supported by empirical evidence from the public administration organizations perspective. In addition the paper compares the impact of intelligence competencies on leadership performance in public administration and business organizations (empirical evidence from previous research). Correlational and regression analyses revealed that identified by research innovative intelligence competencies were associated with higher leadership performance.

**Keywords:** innovative competencies, leadership performance, complexity, systems thinking

---

**Determinants and/or Barriers to the Adoption and Diffusion of Paper Transistors in Portuguese Industry**

Joana Sousa¹, Aurora Teixeira² and Sandra Silva²

¹Faculdade de Engenharia, Universidade do Porto, Portugal
²Faculdade de Economia, Universidade do Porto, Cefup and Inesc, Porto, Obegef, Portugal
Abstract: The transistor is an electronic component that revolutionized the world of electronics, enabling the development and improvement of various systems and products in this area over the years. The paper transistor resulted from research conducted by a team coordinated by Elvira Fortunato. It is an ultra-small (nano) transistor, which is paper-based, a cheap and easily accessible material. This article intends, first, to determine the innovation model behind the paper transistor and, second, based on a survey of a sample of Portuguese firms in industries inclined to adopting the transistor, to understand its level of implementation and assess the determinants that may be influencing this process. A review of relevant literature and an interview with Elvira Fortunato, the key researcher, support the conclusion that the innovation model in question is the interactive one. In fact, since the project began, significant interaction took place between research institutions and industry, which continued throughout the development process. In the second phase of our work, a group of firms was surveyed, selected on the basis of the relevance of the technology on the activities they conduct. Only one firm from the five respondents said they knew of the paper transistor. The answers collected also indicated that there are three main determinants which explain why firms have failed to adopt this transistor: the expected profit, the existence of networks between firms and universities, and information. Thus, we conclude that there is a significant need for increased interaction between universities and firms, so as to promote a broader understanding of the stakeholders’ needs, with the development of innovations in universities and research institutes based on adaptation to the business context.

Keywords: paper transistor; interactive model; innovation adoption; information; innovation systems

Innovation Driven SMEs in Romania: Targets and Challenges in a (Post) Crisis Period

Zsuzsanna Szabó
Petru Maior University of Tîrgu Mureş, Tîrgu Mureş, Romania

Abstract: All economies have been confronted with the same problems lately. On the one hand they are still recovering from the economic and financial crisis, fact which continues to influence the public and private
sector resources and which has a significant impact on further development; on the other hand they are trying to confront the increasing poverty and inequality in the global economy. Sustainable development, equal opportunities are new challenges that need to be approached and solved immediately. The related issue is innovation (Kraemer & Watu, 2010). A growing number of studies and research papers show that economic recovery largely depends on the improvement of the SME sector and on science. Technology and innovation have a significant role in social and economic development. By providing economic competitiveness, the SME sector and innovation have become a priority issue. It is essential to promote policies that sustain innovation and technological transfer in/to the SME sector. Furthermore, these policies should sustain entrepreneurial competitiveness in the region, in industrial branches, in order to increase attractiveness and arrest the attention of investors. All these issue have a significant role in the regional sustainable development. This paper will analyze Romania from this point of view. According to estimates, over 90% of the Romanian SMEs feel the recession. Official data shows that the business environment has deteriorated. In 2009 the decreasing tendency was more accentuated; 10 times more enterprises suspended their activities than in 2008 in the same period. The economic situation of SMEs continued to deteriorate in 2011, the GDP will not have an increasing tendency in 2012 either: it will achieve the same level as in 2008. In Romania the companies concentrate their strategies on the reduced costs of the resources and not on the improvement of productivity. The paper is focused on innovation performances emphasizing the innovative force of SMEs. This study intends to analyze the barriers and challenges for Romania and other East European countries compared to developed economies in line with Europe 2020 strategies. Moreover, it will identify the weak points and local, particular strengths of innovation in the (post)crisis period and will identify the targets for the next period. All the major initiatives in: innovation, education, information society, climate, competitiveness, labor market present challenges for Romania and need short and long term strategies. The scientific approach in this respect is a necessity because it can be observed in publicly available databases that Romania occupies the last places in EU27 in terms of innovation. Targets and tasks for improvement and further development of the innovative SMEs will be analyzed.

**Keywords:** crisis, transition countries, SME, entrepreneurship, innovation, policies
Business and Technology Lifecycles and Adoption of the Entrepreneurial Strategy in SMEs

Kambiz Talebi¹, Gholamreza Dashtimanesh¹ and Reza Hajiani²
¹Faculty of Entrepreneurship, University of Tehran, Tehran, Iran
²Department of Mechanical Engineering, Amirkabir University of Technology, Tehran, Iran

Abstract: Studies have shown that the adoption of the best strategies in business depends on several factors including business and technology lifecycles. In this article will focus on the impact and the effects of business and technology lifecycles on Entrepreneurial Strategy (ES) adoption in small and medium enterprises (SMEs). Few studies have been done on the relationship between ES and the business and technology lifecycles in SMEs, and all of these studies show that business success depends on market opportunities recognition and competitive advantage definition. Consequently, it is appropriate to study the impact of business and technology lifecycles on ES in SMEs. For this research, the information was gathered from the Science & Technology Park and Incubator Center of University of Tehran. The researchers investigated the ES adopted by managers and owners, by considering the SMEs lifecycles and technology lifecycles in SMEs process, simultaneously. The results have been approved by industry experts and university professors. In this article the research methodology is based on both mathematical and nonmathematical analysis. Finally, some types of the entrepreneurial strategies used by SMEs by considering business lifecycles and technology lifecycles at the same time and separately, will be suggested to managers and owners business, and these results will be illustrated by charts and figures.

Keywords: SME, entrepreneurial strategy, business lifecycles, technology

Volume-Based R&D tax Credits and Behavioural Additionality in YICs

Peter Teirlinck¹,³, Daniel Neicu¹,³ and André Spithoven²
¹Hogeschool-Universiteit Brussel, Brussels, Belgium
²Belgian Science Policy Office, Brussels, Belgium
Abstract: This paper investigates the influence of policy support in terms of taxation-related financial slack on the innovative behaviour of young innovative companies (YICs). The focus is on behavioural additionality in R&D projects related to the introduction of a fiscal scheme for advance payment partial exemption in favour of highly qualified researchers in business enterprises in Belgium. The empirical analysis is based on a representative sample of YICs. Information regarding behavioural additionality is provided by a questionnaire sent in 2011 to all R&D active firms in Belgium. The survey combines quantitative and qualitative questions regarding the management of the money made available to the firm based on the fiscal wage pre-emption measure. We find evidence that the government support measures influence the firm’s internal management capabilities that empower resource-constrained YICs to strengthen creative innovation behaviour in terms of risk and acceleration of R&D projects during economic turbulence. The unique situation of creation of a tax incentive at the moment of economic recession sheds new insights on the relation between government support and research management in YICs.

Keywords: YIC, research and development, behavioural additionality, innovation management

Implementation Characteristics of Green Entrepreneurship in the Greek Furniture Sector

Marios Trigkas 1,2, Ioannis Papadopoulos 1 and Glykeria Karagouni 1
1 Technological Educational Institute of Larissa, Department of Wood and Furniture Technology and Design, Karditsa, Greece
2 Centre for Research and Technology Thessaly, Karditsa, Greece

Abstract: Green entrepreneurship is a rapidly growing segment of entrepreneurship which focuses on the environmental integrity and societal impact of businesses to provide competitive advantages for firms. The aim
of the present study is to document the views of furniture entrepreneurs regarding green entrepreneurship and its implementation by their firms. Based on literature review and data analysis we investigate specific hypotheses about the role of green entrepreneurship and its impact on sector’s competitiveness exploring the main characteristics of green entrepreneurial activities. Findings verify our hypotheses that green entrepreneurship could accomplish the role of an alternative strategy for enhancing competitiveness of furniture industry and exiting the existing economic crisis. Specific initiatives of green entrepreneurial activities implemented by furniture companies, aim mainly towards product and process certification and implementation of environmental management systems. Environmental certification constitutes a main element of green entrepreneurship in the Greek furniture sector. However, a high percentage of the questioned firms are not sure about the future of green entrepreneurship in Greece.

**Keywords**: green entrepreneurship, sustainable development, ecological certification, competitiveness, furniture enterprises

---

**A Case Study on the Relationship Between Disasters and Innovation**

Jiro Usugami$^1$ and Hirofumi Abe$^2$

$^1$Aoyama Gakuin University, Tokyo Japan  
$^2$The University of Electro-Communications, Tokyo, Japan

**Abstract**: This study examines corporate innovation related with The Great East Japan Earthquake and Tsunami, and the subsequent nuclear plant disaster in 2011. We conducted case studies based on an interview survey for Japanese private organizations including a TLO (Technology Licensing Organization) and an association. We prepared three research questions for the interview. The first question was how the disasters had influenced
corporate behavior in Japan. In spite of the fact that the disasters delivered negative impacts to a lot of business operations, the organizations participating in the case studies have been assessing their positive corporate behavior from the mid- and long-term perspectives. The second question was how the disasters had influenced technological innovation of Japanese private organizations. We found that the disasters had generated a new direction in technological innovation. Our case studies have examined and confirmed the effectiveness and significance of the current technology, systems and services that each organization had developed and improved. They are now also using their own technology, systems and services in the disaster struck areas as part of CSR (Corporate Social Responsibility) and R&D (Research and Development) activities. The third question was what extent of public support for R&D activities was expected by Japanese private organizations in order to enhance their corporate innovation. Our case studies insisted on the importance of not only emergency but also long-term partnerships with central and local authorities. They also pointed out the necessity of risk management performed by governments as regards electricity and telecommunications services.

**Keywords:** the great east Japan earthquake and tsunami, nuclear plant disaster, technological innovation, CSR, R&D

---

**Inter-Firm Alliances: A Mechanism to Develop Innovative Capacity in Portuguese SMEs**

Luís Valentim¹, Mário Franco² and João Lisboa¹  
¹Management Department, School of Economics, University of Coimbra, Coimbra, Portugal  
²NECE-Research Center in Business Sciences, Management and Economics Department, University of Beira Interior, Covilhã, Portugal

**Abstract:** Nowadays, innovation plays a key role in a company’s survival in an innovation-driven economy. Inter-firm alliances allow Small and Medium Enterprises (SMEs) to develop critical capabilities for growth and innovation through access to external resources and knowledge which are otherwise unavailable. At present, inter-firm alliances are an innovation-
generating procedure, challenging SMEs’ learning and entrepreneurship skills in order to create new products and services. The main research objectives of this paper are: (i) to identify and categorize factors that SMEs take into account when deciding to enter an inter-firm alliance; (ii) verify the importance of innovation-related motives; and (iii) measure the influence of firms’ characteristics on SMEs’ motives. A total of 4,534 SMEs supplied by the Informa D&B Portugal database was surveyed by email. Data was collected in June and September 2011 through an online questionnaire. A total of 260 completed questionnaires were returned, yielding a response rate of 5.73%. For measurement, we used the Haase and Franco (2011) scale of importance with addition of the “knowledge acquisition and transfer” variable (Kogut, 1988). The principal business activities of SMEs in the sample are services (52.3%), manufacturing (43.8%) and agriculture (3.8%), and 62.6% of respondents were involved in alliances with other firms. The motives for entering inter-firm alliances were defined through exploratory factor analysis using the method of principal components and the varimax rotation method with Kaiser normalisation. The analysis grouped the variables into three different factors, explaining 67.2% of the total variance. Factor 1: “Innovation, learning and knowledge acquisition and transfer”; Factor 2: “Operational improvements and reaching competitive advantage”; Factor 3: “Entering new markets and improving and maintaining market share”. The KMO found was 0.878 and the smallest Cronbach’s alpha 0.842, which guarantees high reliability of the psychometric instruments. Using the one-way ANOVA several significant differences were found between manufacturing and service industries as well as between firms focusing on the domestic and export markets. Also innovation, efficiency and competitiveness appear to be the main factors driving SMEs’ cooperation.

**Keywords**: motives, inter-firm alliances, innovation, SMEs, Portugal

**Fight – Impact – Decrease – Climate Change**

Hannu Vanharanta¹, Jussi Kantola², Markku Salo¹ and Pawel Krolas³,
¹Industrial Management, Tampere University of Technology, Pori, Finland
²Industrial Management, Vaasa University, Vaasa, Finland
³Poznan University of Technology, Poznan, Poland
Abstract: Climate change has become a pressing political and economic topic as growing evidence of the phenomenon emerges. The rise in sea levels and increasingly severe weather variations are a global concern, and the issue is already consuming large amounts of resources on global, regional and local levels. Climate change has also led to a new field of research. This research aims to develop clear economic ideas and designs on how we can decrease our impact on climate change through innovative ways of thinking and new products and services. In this research we have worked together with our students on a strategic management course to create new strategic ideas and innovations and finally to make their own companies around these new products and services. We present the basic principles of our research in this paper along with case examples by some of the students.

Keywords: change, climate, decrease, fight, idea, impact

Entrepreneurial Intentions of Engineering Students

Filipa Vieira and Cristina Rodrigues
University of Minho, Guimarães, Portugal

Abstract: Promoting entrepreneurship is a key opportunity in the current environment, and engineering have recognized this criticism by including in their curricula basic financial disciplines. Given the current economic situation, provide the future engineer with concepts and techniques to move from knowledge to action, can improve the value perception of entrepreneurship as an alternative to employability on behalf of others. The aim of this paper is to present the preliminary results of the ENGEmpreende survey developed to measure the perceived attitudes and values of entrepreneurship by engineering students. Our sample involves 387 students of engineering courses from University of Minho with no experience in entrepreneurial courses, divided into undergraduate (78.55%) or master's degree students in engineering (21.45%). Portuguese engineering students report good levels of thoughts about entrepreneurship. Our study also found that their entrepreneurship predisposition has dependency relationships with gender, thoughts about entrepreneurship and entrepreneurial activities. The results of the perceived image of the entrepreneur suggest that students recognize the positive image of the entrepreneur in society, but have doubts about what is best: entrepreneur or employee in a large company? As perceived barriers, engineering students perceive as difficult
to find a business idea or access to bank loans. Students’ perceived skills and competence suggest a perceived high adaptability, perseverance, technical confidence and orientation to results. The results of ENGEmpreende survey give an additional contribution to the theme of engineering entrepreneurship intentions through the identification of entrepreneurship predisposition, attitude to self-employment, entrepreneurial image, barriers to entrepreneurship, risk perception and technical confidence. We identified differences explained by factors such gender and thoughts about entrepreneurship.

**Keywords:** entrepreneurship, entrepreneurial behaviour, entrepreneurial intentions, engineering students

**Institutions: How Relevant for Interactions in an Emerging Regional Innovation System?**

**Marcia Villasana and Danilo Chavez**  
Tecnologico de Monterrey, Monterrey, Mexico

**Abstract:** This paper addresses the impacts that the institutional framework may have on university-industry interactions and academic entrepreneurship. An empirical study was conducted applying a grounded theory approach with biotechnology researchers at the two largest universities in the Mexican state of Nuevo Leon, motivated by the institutional changes aimed at developing a biotechnology cluster. Findings point towards how challenges to science-based knowledge exchanges and entrepreneurial activity come from within the university, posing organizational challenges for researchers. An implication is the need for these universities to become more flexible in order to better respond to a local institutional environment that promotes innovative activity as a key element for regional development.

**Keywords:** university-industry interactions, academic entrepreneurship, regional innovation systems, Mexico

**Social Networks use for Geographical Expansion in Rural and Urban Small Firms**
Cathie Wright¹, John Sanders¹, Laura Galloway¹ and Jo Bensemenn²
¹School of Management and Languages, Heriot-Watt University, Edinburgh, UK
²School of Management, Massey University, Palmerston North, New Zealand

Abstract: Recent research has indicated that small firms rarely expand geographically despite a preponderance of literature stating that new technologies like the internet and mobile devices would assist and encourage it. Existing literature also suggests that social networks provide important information and resources that influence geographical expansion. This paper investigates whether these aforementioned themes are the case for Scottish urban and rural small firms. In addition, this paper considers social networks and their impact on geographical expansion for rural and urban small firms. This work, using telephone interviews of 142 Scottish urban and rural small firms, found that there was no difference in internet use between rural and urban small firms and that rural small firms were less likely to depend on their local markets than urban small firms. Further work will be undertaken to confirm these findings as the research is ongoing. The results of the paper have important implications for researchers, managers and public policy. The paper will also be of interest to conference participants because it contributes to our understanding of the use of social networks on small firms for commercial development and business growth, both of which are of interest to the entrepreneurship academic community.

Keywords: small firms, rural, urban, growth, social networks

Assessing the Impact of Transformational Leadership, Market and Learning Orientations on Entrepreneurship and Innovation: A Neural Network Topology

Afonso Zinga¹, Arnaldo Coelho¹, Maria Silva¹ and Fernando Carvalho¹
¹Department of Management, Faculty of Economics, University of Coimbra
Av. Dias da Silva, Coimbra, Portugal
Abstract: In today’s fast-paced competitive environment and more informed and discerning customers, firms face the need to develop their entrepreneurial behavior and enhance their innovative skills to gain competitive advantage. These entrepreneurial proclivities are path-dependent to firm’s capability to question true and tried theories. Therefore, this study uses 208 firms with the aim of investigating, in detail, the salient contribution of transformational leadership, market and learning orientations on entrepreneurship and innovation. A neural networks topology was used to understand and identify the links between these variables, with the hidden layer nodes being labelled to represent firm’s less easily articulated capabilities. Neural networks are pattern recognition algorithms capable of capturing salient features from a set of inputs and mapping them to outputs without making a priori assumptions about the specific nature of the relationships among variables. The findings illustrate that those new intermediate latent factors (i.e. managerial, marketing, and dynamic capabilities) give a significant contribution to understand how the firm’s entrepreneurial and innovation behavior can be boosted. The implications of the findings for researchers interested in applying ANNs to study entrepreneurial actions are discussed.

Keywords: entrepreneurship, Innovation, marketing, dynamic and managerial capabilities, neuronal network
PhD Research Papers
Entrepreneurial Leadership Learning: The Critical Role of Involvement

Afsaneh Bagheri and Zaidatol Akmaliah Lope Pihie
Faculty of Educational Studies, University Putra Malaysia, Serdang, Selangor, Malaysia

Abstract: Entrepreneurship education has recently focused on developing leadership competencies required for successfully running a new venture in students due to the imperative impact of entrepreneurial leadership in the whole process of creating a new venture from the decision to step into entrepreneurship as a career path to its performance and success. Consequently, various forms of leadership learning opportunities in entrepreneurial contexts have been offered to students particularly at higher education institutions. However, our knowledge is limited on the factors that facilitate students’ entrepreneurial leadership learning. This qualitative research investigates learning entrepreneurial leadership competencies among student entrepreneurial leaders defined for the purpose of this study as students who have been successfully leading university entrepreneurship clubs and activities at least for two semesters. 14 undergraduate entrepreneurial leaders were purposefully selected as participants from four universities in Klang Valley, Malaysia. We chose the participants from successful student entrepreneurial leaders to avoid selection of those who just had the leadership positions but were not fully engaged in leading entrepreneurial activities. We selected the students from both public and private universities offering entrepreneurship education programs both in their curricular and co-curricular activities. We used semi-structured and in-depth interviews to gather the data. Data analysis indicated the critical role of involvement in real leadership task and role performances in students' entrepreneurial leadership learning and development. Learning that occurs through enacting leadership practices and in relation to other students as well as experiences gained by practicing different leadership tasks helped the students learn how to influence people and create business ideas. This finding highlights the influential role that students' involvement in leadership tasks and roles plays in their entrepreneurial leadership learning and necessitates provision of opportunities for them to practice leadership in different entrepreneurial projects and programs. Implications of the findings and suggestions for developing entrepreneurial leadership
Development and Economic Growth Contribution of Migrant Workers and Entrepreneurs

Ileana Ciutacu  
Economics Department, Institute for Doctoral Studies, Bucharest Academy of Economic Studies, Bucharest, Romania

Abstract: What is the importance of the contribution brought to economic growth and development by migrant workers and entrepreneurs in general? How big and what kind of innovation these migrants bring to the people and economy of the country they migrate to? Usually the people who migrate, go from the East to the West, from where most of the poorer regions and countries are to where they hope they can find a better job and life. But because of the differences of culture, the migrants often have problems adapting and integrating themselves and their families in the communities they decide to move into. Even though the migrants might choose a country/region that is similar to their birth one, thus diminishing their adaption and integration difficulties, the scarcity and sometimes lack of jobs that globalisation and the exponential population growth transformed it in reality in most of this world's countries and regions, might make the indigenous be more obsolete and rigid towards any person that might take or steal his or hers job. Still, migration flows can be beneficial for the country or region they are directed to and its inhabitants, because the breath of fresh air and innovation brought by these people can revitalize not only the economic and development processes, but also the social ones. The aim of this study is to answer these questions by using an agent-based modeling approach in order to build scenarios which will say whether the migrants' contribution is beneficial or not for the economy of the country/region they move to and the certain point in time for that result. By using the concept of self-similarity known from Fractal Geometry, these scenarios will then be replicated at a higher geographical level. The results of this study can be very useful for the social and economic policy makers,
because by taking into consideration the externalities caused by the presence of these people, be it positive or negative, different policies can be designed and implemented in order to lead society and economy towards the direction desired by the respective region or state.

**Keywords:** migrant worker, migrant entrepreneur, innovation, self-similarity, agent-based models

**Analysis of Consumer Profiles in the Presence of a Disruptive Innovation**

Biagio Di Franco and Monica Izvercianu
Politehnica University of Timișoara, Faculty of Management in Production and Transportation, Timișoara, Romania

**Abstract:** This research aims to minimize or even to cancel the resistance of the consumer faced with a disruptive innovation. Most research on the field is based on consumer behavior in a "push" strategy: innovation "imposed" or "pushed" by the company. When the disruptive innovation (or suppletive) is introduced to the market through a "Push" strategy, most of the people are in presence with series of parameters or variables (psychological, economic, etc.) and will start a "Behaviors reacting in chain" or a "process of resistance to innovation" that leads to the phenomenon better known under the name of resistance to innovation, as major result: rejection of innovation. The state of the art has highlighted the key variables that create resistance to innovation following the "push" strategy. These are: traditions and norms, existing usage patterns, perceived image, information overload, physical risk, economic, functional risk and social risk. This article proposes to analyze the causes and possible solutions to make the disruptive innovation desired by the consumer. It is expected to study the mode of presentation and characteristics that must have a disruptive innovation before its announcement to the market to prevent the engagement of the process of resistance and even stimulate the awakening and curiosity of the consumer. Based on the model of resistance, it is expected in a future publication to create and develop a model of attraction of an innovation, to identify the factors that create the demand for innovation, in this way innovation will be adapted to the market and not imposed. My position is at the opposite of the currently applied strategies,
used during introduction of a disruptive innovation. Most of the research in the field, are based on consumer behavior in a "push" strategy (innovation "imposed" or "pushed" by the company). It is proposed here to study the possible ways to introduce a disruptive innovation based on "pull" strategy: innovation is "pulled" or "requested" or "solicited" by the consumer.

**Keywords**: customer resistance to innovation, disruptive innovation, model of consumer resistance to a disruptive innovation

**A Theoretical Contribution: Web 2.0 and Entrepreneurial Corporate Culture Linked to Radical Innovation**

**Diane Duparc**  
**Paris 1 Panthéon-Sorbonne University, Paris, France**

**Abstract**: The purpose of this PhD paper is to examine the way web 2.0 technologies increase the newness of innovations in organizations due to a well-managed intellectual capital. To deal with this question, this article reviews the literature on innovation in order to see the added value of three main theories, that is to say the Resource based-view, Knowledge based-view and Intellectual capital-based view. Digital use is classified into three types: (a) collection and research of information, (b) management project tool, (c) social media, allowed by web 2.0. The researcher explores conceptual links between intellectual capital and both radical and incremental innovations and argues that web 2.0 use positively influences the amount of intellectual capital held by companies. There are specific dimensions in intellectual capital that improve radical innovations: human capital and structural capital. Indeed, today’s companies evolve in the knowledge economy, thus competitive advantage belongs to innovative ones. In that kind of economy, transfer of knowledge and information is critical and helped by the growing use of digital tools. Resource-based view, that is firm specific assets and knowledge, as well referred to as competencies and distinctive capabilities have lead developed economies to knowledge management. This allows companies to innovate frequently, because employees can use the maximum of information and knowledge available, at the right time. The focus is increasingly on intangible assets as 80% of the
value of today’s businesses depends on intangibles. The research question here is to analyze the impact of web 2.0 technology uses on radical innovation by managing intellectual capital composed by human capital, structural capital, including entrepreneurial corporate culture, and relational capital. There is a lack of studies linking intellectual capital and radical innovations in the context of digital tools, mainly web 2.0 technologies. We are therefore developing a literature review on the intellectual capital-based view, resource-based view and knowledge-based view and their links to radical innovation within the context of web 2.0 technologies use.

Keywords: intellectual capital, entrepreneurship, innovation, resource-based view, web 2.0

Entrepreneurial Innovation: An Empirical Investigation in the Sri Lankan Rubber Industry

Shyamalie Ekanayake¹ and Dhammika Abeysinghe²
¹Dept of Industrial Management, University of Kelaniya, Sri Lanka
²Australian School of Business, University of New South Wales, Australia

Abstract: The goal of innovation is to discover the market advantage and commercialization to extract optimum market value. To achieve the innovation goal, it requires tangible and intangible competencies to promote the market advantage and to inspire recognition of stakeholder capital to position it dominantly in the market to extract optimum value. The innovation process is a result of commitment of entrepreneurial capital. The leadership role played by entrepreneurial capital initiates a business process, which requires core competencies and competitive capabilities embedded with knowledge management and technological transfer strategies for performance innovation for inventiveness of market assets. The market assets contain consumer solutions, enriched with technological and intellectual standards to respond to market demand. Knowledge and technology transfer process becomes a binding force to develop intellectual competencies to evolve as competitive intelligence, a competitive force necessary for commercialization of market assets and to compete through ambiguity to earn potential value. The core competencies of business process innovation therefore are entrepreneurial, technological, intellectual and stakeholder capital. Their maneuvering leads to competitive capabilities neces-
sary to compete in the market. A framework for innovation process is designed to include core competencies and competitive capabilities that collaborate together to achieve innovation goals. The fit between core competencies and competitive capabilities determine competitiveness of business process, the industrial value and its sustainability. The empirical investigation and literature review together highlighted core competencies and competitive capabilities to arrive at the innovation framework and testing it in field validated the findings to receive positive results for value innovation. The empirical investigation reveals that the Sri Lankan rubber industry had delivered market advantage as ‘latex crepe rubber’, but, it is traded as a commodity without creating an impetus on its advantage. Non-existence of an industrial strategy to implement knowledge management and technological transfer strategies to build technological and intellectual benefits to face competitive pressures had led instability in the industry and fluctuations in rubber prices. A qualitative inquiry to understand industry environmental phenomenon from industry practitioners and a quantitative inquiry on industrial performance and value generation were undertaken to facilitate data reduction and generate meaning to determine competitive measures for the industry to achieve optimum value. The strategic management focuses on both knowledge and technology management process embedded in core competencies and competitive capabilities to compete in the market which needs understanding by academics and industry practitioners to gather insights for value innovation.

**Keywords:** entrepreneurial capital, intellectual capital, competitive intelligence, market advantage, technological/intellectual standards, premium value

### The Effect of Crowdfunding on the Resource Assembly Process During and After Venture Formation

**Denis Frydrych, Adam Bock and Tony Kinder**  
**University of Edinburgh, Edinburgh, UK**

**Abstract:** Crowdfunding presents a potentially novel approach to entrepreneurial resource assembly. To date, however, limited research has considered either the underlying processes or the follow-on financing implica-
tions of crowdfunding activities. In our research we investigate crowdfunding by applying the resource-based view. To explore the effect of crowdfunding on downstream financing opportunities and its impact on the firms’ long-term resource assembly process, we conducted two interviews with entrepreneurs who successfully obtained financing through crowdfunding. Preliminary key findings include: (1) the crowd of investors is not utilized constructively by entrepreneurs in order to acquire other resources than financial capital, and (2) the increasing number of investors is not understood as a limitation by the start-up firm for future downstream finance opportunities.

**Keywords:** crowdfunding, entrepreneurship, resources, venture capital

**Entrepreneurship and SMEs Through Business Incubators in the Arab World (Case Study of Jordan)**

Emhamad Hamad and Leslie Arthur
Product Design, School of Architecture, Design and the Built Environment, Nottingham Trent University, UK

**Abstract:** Business incubators (BI) have proved to be effective tools for looking after Entrepreneurship & SMEs to tackling unemployment, diversifying economies and creating wealth in numerous developed countries. By providing timely help and support for new ventures, business incubators hold the potential to create and develop entrepreneurial talent at the micro level and foster an environment for entrepreneurship at the macro level. This research aimed to determine whether the economic conditions for business strategy in the Arab World are favourable to a programme of business incubation and to suggest directions on the best ways to implement more business incubation in the Arab countries. To meet this aim the study undertook a snowball approach and distributed a designed questionnaire to the incubation unites in Jordan. The findings of the research contribute to the literature of business support services, innovation and entrepreneurship development and will enhance the knowledge and skills within the incubation industry. The centre’s incubator programme is designed to accelerate the successful development of young entrepreneurs and their businesses.

**Keywords:** Arab World, business incubators, entrepreneurship, innovation, Jordan and SMEs
Dynamic and Autotelic Capabilities in Knowledge-Intensive, Low-Tech Ventures

Glykeria Karagouni, Aimilia Protogerou and Yannis Caloghirou
National Technical University, Athens, Greece

Abstract: Dynamic capabilities have been treated mainly as organisational, firm-specific capabilities in the context of large, established high-tech organizations. However, a small but increasing stream of research suggests the entrepreneurial team as a source of DCs indicating that these capabilities can exist already at the outset of the venture. The present paper explores the organizational and entrepreneurial dynamic capability perspective by a two-fold study: it examines the existence and significance of DCs in knowledge-intensive, low-tech firms providing answers to questions unaddressed by previous studies. It further introduces the Autotelic Capabilities Framework as a first endeavour to shed light on the unexplored strategic side of the start-up activity in low-tech knowledge-intensive entrepreneurship. The study revealed that possessing and further cultivating autotelic capabilities can be a major success factor in knowledge-intensive ventures. The dimensions of Autotelic Capabilities, bricolage, improvisational and transcendental capabilities located mainly in the entrepreneurial team, create novel business concepts and establish successful ventures in saturated competitive arenas. The conceptual framework advanced can add to the understanding of core issues of the emerging stage of low-tech ventures and the creation of initial competitive advantage. Regarding Dynamic Capabilities, the study proved that low-tech companies that invest and build their strategy on knowledge intensiveness and innovation, develop relatively strong DCs to gain competitive advantages, usually resulting in niche creation, adding value and surpassing fierce price competition. While the basic micro-foundations of sensing, seizing and reconfiguring were detectable in all sampled companies, there were considerable differences due to sector, size and age.

Keywords: dynamic capabilities, entrepreneurial capabilities, knowledge-intensive, low-tech, competitive advantage, new venture
The Measurability of the Impact of Corporate Social Responsibility on Business Performance

Malte Kaufmann and Marieta Olaru
The Bucharest Academy of Economic Studies, Bucharest, Romania

Abstract: This paper examines the question of measurability of the impact of Corporate Social Responsibility on Business Performance. It starts with describing newer trends of measuring business performance, showing that one can observe a shift from the classical short-term analysis with particular focus on indicators like shareholder value, revenue and market share toward also taking into account soft indicators, such as employee and customer satisfaction, which contribute to the long-term success of a company. This approach is shown based on the European Foundation of Quality Management (EFQM) criteria. The paper goes on to give an overview of latest trends in the field of Corporate Social Responsibility and then offers a possible way to measure its impact on Business Performance on the basis of the stakeholder concept. In addition, it provides a model to describe an optimum selection of CSR activities for a company.

Keywords: corporate social responsibility, business performance, European foundation of quality management (EFQM), stakeholder concept

Places for SMEs to Cooperate in Innovation in the Basque Country

Maria Jesus Luengo1, Maria Ángeles Intxausti2 and Iñaki Periañez3
1Department of Management Evaluation and Business Innovation, School of Business Studies, University of the Basque Country, Bilbao, Spain
2Department of Applied Economics V, School of Business Studies, University of the Basque Country, Bilbao, Spain
3Department of Financial Economics II, Faculty of Business and Economics, University of the Basque Country, Bilbao, Spain

Abstract: In times of crisis, like the present, the synergies - that are generated by providing direct and indirect components of added value chain of one activity sector in one space, physical and/or virtual, where they can
share, transfer and generate productive and organizational improvements – prove to be an important source of generation and maintenance of competitive advantage, as shown in this paper. We are living a crisis that began in 2007, which took shape in 2008, and which has turned, in Spain, into a constant job loss and decreased activity. Among activity sectors of the state, one of the most important is automotive equipment and components because subcontracting and supply of pre-assembled systems increases more and more; so, in recent years, is taking functions of R&D and coordination among suppliers. However, being a sector largely comprised of SMEs, with resource constrains, implies a high degree of difficulty accessing R&D and innovation and internationalization. Cooperation and collaboration through participation in organizations that bring together all the knowledge brokers who are part of the value chain, ensuring successful access to these activities, and maintenance and improvement of their competitive advantage. Our aim as to highlight the differences, in main economic indicators of enterprises in this sector, between Spain and Basque Country, where there is, since 1993, an automotive cluster that includes all direct and indirect agents involved in added value chain of activity. With this, we aim to help companies in decision making related to R&D & innovation & internationalization activities, extending the information available at this time. Furthermore, this research contributes to Academic World, highlighting a fundamental relationship in the field of collaboration and cooperation for R&D & innovation & internationalization in organizations, through the case of Basque Country.

**Keywords:** cluster, innovation, cooperation, competition, competitive advantage

**Integrating Innovation Indicators in the GPE Model for Automobile Performance Assessment**

**Cristina Moisa, Marieta Olaru and Ionela Carmen (Rizea) Pirnea**

**The Bucharest Academy of Economic Studies, Bucharest, Romania**

**Abstract:** The industrial excellence plan prioritizes the company’s performance evaluation according to quality, cost and delivery time. However, the dynamic of the technological changes requires the need to approach the concept of sustainable performance in defining development strate-
gies. As innovation is stimulated by, but also dependent on research and development activities that a company undertakes, this paper suggests, in the first part, a review of the current models of suppliers’ performance evaluation, analyzing the presence of innovation indicators through the monitoring of research and development activities. In the second part of the paper, the authors aimed to highlight the direct relationship between research and development and industrial performance. Using Eviews 4.1, the annual data series from 1996 to 2010 have been analyzed and forecasts have been made until 2025. The literature review results and the comparative analyze with the most performing economies for the same period highlight a direct relationship between research and development expenditures and industrial performance. Based on the results obtained, the authors argue the necessity of a PMS framework, as a starting point in defining the innovation indicators through R&D activities. Thus, the paper proposes a PMS framework for the R&D activities in the and also, some examples of indicators for assessing the innovation degree in the main priority areas from the automotive industry. The new approach is associated to the GPE multi criteria model. The study results and suggestions are useful for both car manufacturers and suppliers, facilitating the improvement of their competitiveness and innovation capacity. In addition, this approach could allow automotive constructors to anticipate and assess long term performances, in correlation with the dynamics of technological changes. The paper highlights the results of a doctoral research regarding business performance assessment of organizations, conducted within the Research Center of Business Administration of The Bucharest Academy of Economic Studies.

**Keywords:** R & D expenditures, innovation, industrial performance, GPE model, automotive industry
Non-Technological Innovation: Current Issues and Perspectives

Cristina Pereira¹ and Fernando Romero²

¹Production and Systems Department, School of Engineering, University of Minho, Guimarães, Portugal
²Centre for Industrial and Technology Management, University of Minho, Guimarães, Portugal

Abstract: Innovation can be considered to be a complex phenomenon including technical and non-technical aspects. A remarkable increase in the interdisciplinary attention devoted to innovation has been noticed over the recent decades but the formal technological and economic aspects of innovation have received much more attention and have been taken into account in a far greater number of analyses, despite the great importance of the non-technological dimension of innovation. Non-technological innovation is an important element of firms’ innovation activities that both supplement and complement technological innovation. Some scholars have pointed out that innovation in firms is not just about developing and applying new technologies but it involves also adoption and re-organization of business routines, internal organization, external relations and marketing. The innovation management literature stresses the importance of integrating product, process and organizational innovation for successfully transferring new ideas and new business opportunities into market and it emphasizes the crucial role of linking R&D, technological innovation and new marketing approaches. This paper attempts a review on the important subject of non-technological innovation. The main ideas on the non-technological dimension of innovation research will be highlighted, followed by an attempt to integrate diverse and disparate perspectives on the subject, to present evidence on possible generalizations and to discuss eventual research gaps and opportunities for further studies. The relationship between technological and non-technological innovation is complex and not fully understood. Among several aspects that will be covered in this paper, two specific ones will receive special attention in this brief analysis: the evidence on the impacts of non-technological innovation, and the measurements efforts that have been made concerning this phenomenon.

Keywords: non-technological innovation, organizational innovation, innovation indicators, new forms of innovation
Emerging Challenges for Entrepreneurship and SMEs in the Context of Knowledge Capitalism and Glocalization

Adalberto Rangone  
University of Oradea, Romania

Abstract: The figure of the entrepreneur has been going through a settled and resolute transformation in the modus operandi and consequently, the economic theory has analyzed it in different ways. Since many centuries until today, the growth, the economic development, the entrepreneurial activity, the new technologies and the innovations have represented the fulcrum of innumerable studies and researches. This paper is structured in three parts. The first part is dedicated to a brief excursus about the figure of the entrepreneur so differently analyzed by Economic Theory: from the original idea of Entrepreneur by Cantillon to the Neoclassic School. Through Max Weber, we propose to analyse the Schumpeter’s “Creative Destruction” theory and Galbraith’s “Technostructure”. This analysis tends to identify the Entrepreneur as the key figure in the realization of the economic development, which today is principally based on the new technologies and the innovations latu sensu. In the second part, we take in consideration the new paradigms of the entrepreneurship in the knowledge capitalism. In fact, the new figure of the entrepreneur is increasingly looking for important and concrete innovations, which are able to transform themselves into intangible assets. Movable and immovable capitals have begun less important than another type of capital, the intellectual one. The intellectual capital is more and more identified as the amount of all that employees and collaborators know and can transform in a larger margin of competitiveness than competitors. The economy based on the knowledge depends and will increasingly depend on new competences, new models of organization and corporate governance. In the third part we would like to reconsider the phenomenon of the globalization and its many effects that have influenced the corporate choices. For more than twenty years, this phenomenon has induced the economic scientists - also those one of undoubted reputation and seriousness - to think that there is no more place for a local entrepreneurship. Consequently, they get the SMEs into a lower dimension. On the contrary, among numerous economic processes, the globalization has created a new phenomenon called “glocalization” that
has highlighted the importance of the local dimension. After a more intimate and accurate analysis about the impacts of the globalization and necessity of changing in the politics of credit handled by Banking and Financial Operators for the SMEs development, this paper gets to its conclusions. This work proposes to consider the entrepreneurship metamorphosis from a brief analysis about its first and main historical-economic identifications, to a present-day more accurate analysis. The emerging result is a consideration concerning the new face of the entrepreneurship; an analysis about its relation with the new economic challenges that the present economic setting has produced internationally and at local level. After an analysis about the numerous transformations of the entrepreneur figure, which is so able to adapt him to the changeable socio-economic conditions of the reality in which he works, we can emphasize the great importance of the figure of the entrepreneur, which has been developing both internationally and locally as a very important element for the local economic growth.

Keywords: entrepreneurship, corporate governance, knowledge capitalism, glocalization, SMEs

What Ingredients Define a Successful Small Business – A Review of the Literature

Ted Sarmiento
Leeds Metropolitan University, Leeds, UK

Abstract: This paper will take a fresh look at some of the pertinent contemporary and historical literature associated with business research and in particular into what might contribute towards small business ‘success’ or otherwise, including what defines ‘success’ for the small business sector. Beginning with general texts on entrepreneurship, enterprise and small business the paper considers small business success – in terms of characteristics, factors, facilitators, cultures, definitions and failure. Taking the view that success, in whatever guise it may come, should somehow be knowable (i.e. measurable), this paper will examine methods of measuring and managing performance and the role of management education and training particularly for smaller organisations. In this literature review the paper will attempt to bring to the fore some important and interesting works
that pertain to the topic of small business ‘success’ but it also recognises the explosion of research into enterprise, entrepreneurship and small business that means a fully comprehensive literature review is now virtually impossible. Selected works, from as early as the eighteenth century though to current practice have been included, however it is accepted that a vast ocean of papers, books, journal articles, conference proceedings, websites, blogs, tweets etc. exist and it is in this regard that the author seeks feedback from this conference.

Keywords: entrepreneurship, literature review, performance measurement, SME, small business, success

An Explanation for the Adoption of Industrialised Building Construction in Malaysia: System Functions

Saiful Azri Abu Hasan Sazalli, David Greenwood, David Morton and Brian Agnew
School of the Built and Natural Environment, Northumbria University, Newcastle upon Tyne, UK

Abstract: Industrialised Building System (IBS) has been promoted by the Malaysian government as it is considered as an innovative method of building construction that offers benefits and advantages compared to the existing methods of building construction in Malaysia. The existing methods rely heavily on on-site based labour resources and implement the building construction works in an uncontrolled environment. This has been a factor in the problems confronting the Malaysian construction industry. Although there has been numerous government actions to increase the adoption of IBS in Malaysia, its acceptance among constructors is not encouraging. This paper aims to propose an alternative method of analysis that should allow us to explain and pinpoint the key mechanisms that block or induce the development process of IBS practice in Malaysia. Through a literature review, this paper highlights the Technological Transitions and System of Innovations frameworks. From these, a System Functions framework has been chosen to study the development, diffusion and use of IBS in a Malaysian context.

Keywords: technological transition, system of innovations, system functions, industrialised building system, Malaysia housing construction
Self-Efficacy of Students Attending Higher Education Institutions

Dina Teixeira¹, Jorge Simões² and Maria José Madeira Silva³
¹Polytechnic Institute of Guarda (IPG), Guarda, Portugal
²Polytechnic Institute of Tomar (IPT), Management Department, GOVCOPP, Tomar, Portugal
³University of Beira Interior (UBI), Management and Economics Department, Centre for Spatial and Organizational Dynamics - CIEO, Covilhã, Portugal

Abstract: This study is aimed at proposing a conceptual model identifying and analysing factors influencing entrepreneurial self-efficacy of students attending higher education institutions, as well as determining their perceptions of formal entrepreneurship learning. The literature review on entrepreneurship education and the approach on entrepreneurial self-efficacy will guide the present research. This line of research on entrepreneurship education is presented with the aim of increasing understanding of entrepreneurship, and of identifying the main stimulating factors behind the entrepreneurial self-efficacy, at the level of entrepreneurship. In order to analyse the importance of university students’ self-efficacy, the model is formulated according to the literature review, considering the proposal of entrepreneurship as a multidimensional concept. This paper represents an original contribution since it proposes a conceptual model. This analysis can then be used as a policy tool to evaluate current policy measures in Portugal.

Keywords: entrepreneurial self-efficacy, entrepreneurship education, entrepreneurial intention, higher education institutions
Work in Progress Papers
The Case of Fifth Generation Virtual Assistants

Francisco Gonzalez-Bree, David Cembrero and David Ruiz de Olano
Deusto Business School, Bilbao, Spain

Abstract: This paper presents the case of 5th generation Virtual Assistants (VAs) that are from the authors’ point of view radically innovative and quite different to current Technology Based Self-service systems (TBSS) to which their VAs predecessors belong (VAs from 1st to 4th generation). Consequently, the objective of this paper is twofold, firstly these authors will analyze in detail the reasons why these systems can be considered radically innovative and different to current TBSS systems and secondly the authors will introduce a conceptual framework that integrates the drivers that influence customer’s interactions with these systems.

Keywords: virtual assistants, technology based self-service, customer service

Innovation and Regional Economic Growth in European Countries

Corina Grigore¹, Georgeta Grigore² and Constantin Draghici³
¹Academy of Economic Studies, Bucharest, Romania
²University of Constantin Brancoveanu, Pitesti, Romania
³State University of Pitesti, Romania

Abstract: Differences across regions within countries are often greater than differences between countries, yet economists, policymakers and international organizations have paid less attention to regional development than national growth. Regions should promote their own growth by mobilizing local assets and resources so as to capitalize on their specific competitive advantages, rather than depending on national transfers and subsidies to help them grow. Traditional policies based only on infrastructure provision or schooling are not sufficient for this task; instead, a more comprehensive policy is called for, one that integrated these two policies in a co-ordinated agenda across levels of government and that foster business development and innovation. This paper aims to look into the determinant role of innovation at regional level for potentially explaining the
variations in growth among regions in Europe. The paper provides in the first section a literature review on existing studies related to regional development and innovation. The second section provides a brief description of the methodology and continues with the results before concluding.

**Keywords:** economic development, regional growth, innovation, regional innovation system

### The Impact of the Expansion of Chain Stores on the Local Producers – A Case Study of Bihor County, Romania

**Ioana Pop Cohu, and Adina Catana**  
*University of Oradea, Faculty of Economic Sciences, Oradea, Romania*

**Abstract:** The expansion of commerce, in the context of the changing framework regarding technologic innovation, the raising quantity and quality of knowledge, the growth of living standards, the competition and the development of the activity realised by economic agents is the subject of important demands that they have to adapt to and for which they have to find solutions. In order to observe the impact of those requirements on companies, we focused our research on the influence of the chain stores expansion – as an expression of internationalisation and expansion of markets, technologies and goods circuits – on producers from Bihor County, Romania. The data base analysed consists of obtained information in the direct and bibliographic research – through applying a questionnaire on 50 goods and services produced by companies that managed or not to sign distribution contracts with the chain stores that have points of sale in Bihor County.

**Keywords:** entrepreneurship, business administration, local producers, costs of production, productivity
Women Entrepreneurs in Western Romania: a Business Profile

Anca Dodescu, Alina Badulescu, Ioana Pop Cohut, University of Oradea, Faculty of Economic Sciences, Oradea, Romania

Abstract: Entrepreneurship and particularly women entrepreneurship are widely recognized as growth engine and mean for women empowerment, and investigating its driving forces and determinants is a subject of great interest for creating and implementing public policies focused on fostering women entrepreneurship. Nevertheless, compared to the contribution of women and their businesses to the creation of new jobs and economic growth, the research dedicated to women entrepreneurship is surprisingly poor and rather oriented to specific differences and gender discrimination than to fostering women entrepreneurship. Moreover, in the current economic context, the potential of the women entrepreneurship as an engine to overcome the economic crisis and to alleviate poverty is under-evaluated. There is, therefore, a need for a careful assessment of the women entrepreneurship potential as well as a careful identification of key policy framework conditions aimed at encouraging women entrepreneurship. Starting from the main lines of the literature, the paper investigates the business profile of women entrepreneurs in western Romania, as revealed by an empirical, mainly quantitative, research. The research was undertaken in the frame of a complex educational and research EU-funded project, namely AntrES project. AntrES (Romanian acronym for: The Entrepreneurship and the Equality of Chances. An inter-regional model of Women Entrepreneurial School) was a strategic project co-financed from European structural funds (around 3,000,000 euros), covering six counties in Western Romania, that created an inter-regional research, education and communication network (6 universities, 60 researchers, 1800 women entrepreneurs and potential entrepreneurs supported). The AntrES project has been selected from European Commission as success story. The present paper presents the research methodology and the data set generated, and the main findings concerning the business profile of women entrepreneurs in Western Romania. There are approached issues as: fields and sector preferred, age of the firm, ownership issues, occupational status and affiliation of business women, professional level and studies, entrepreneurial history and previous entrepreneurial experiences etc. The
paper concludes suggesting gender-sensitive mix policy for encouraging women to exploit the possibilities offered by local and regional potential, based on the business profile of women entrepreneurs in Western Romania identified. Addressing to academics, practitioners and public authorities, the paper is a consistent study-case with considerable implications for further analysis and policies.

**Keywords:** women entrepreneurship, business profile, gender-sensitive mix policy, regional development, economic crisis.
Abstracts Only
Emotional Competences in the Entrepreneurial Activity of Romanian Women of Western Romania

Elena – Aurelia Botezat
University of Oradea, Romania

Abstract: For thousands of women from western Romania, managing their own business is a key factor for social affirmation and financial independence. Entrepreneurship is a creative process based on discovery, evaluation and exploitation of opportunities in order to create competitive goods and services. This qualitative study examines the role of emotional competences in a successful entrepreneurial activity. For this purpose we interviewed successful female entrepreneurs, integrated within the framework of the project entitled "The Entrepreneurship and the Equality of Opportunities. An Inter-Regional Model of Entrepreneurial School for Women (AntrES)", implemented in six counties situated on the Western border of Romania. In our paper, we will begin by revisiting concepts such as creativity, different types of intelligence, rational spirit, intuition, based on relevant studies, research programmes and publications in order to understand the ways in which the human mind works. We will specifically focus on identifying the ways in which the emotional competences come into play. The strategy of the practical part was to interview the female entrepreneurs about the process of decision making related to their business. We used Rowe & Mason Test to see if there is a preference for one of the four styles, and how strong related is the decision making style to the emotional process, in order to provide success in entrepreneurial activity. This small and modest study, exploratory rather than normative, is in our opinion, a first step to a better understanding of emotional competences’ role in a performant entrepreneurial activity.

Keywords: creativity, rational thinking, intuition, female entrepreneurship, Western Romania
Knowledge Management Behaviour: The Case of Growth-Oriented SMEs in Atlantic Canada

Douglas MacDonald¹, Dongkoo Yun² and Andrew McAuley³
¹Bissett School of Business, Mount Royal University, Calgary, Canada
²University of Prince Edward Island, Canada
³Southern Cross University, Australia

Abstract: In this study, we explored the impact of Knowledge Management (KM) i.e. internal and external knowledge acquisition, intra-firm knowledge dissemination and management decisions taken in response to the significant information generated and subsequently filtered on entrepreneurial success. The analysis is based on a detailed survey of 81 growth-oriented SMEs established in Atlantic Canada. Our empirical findings show some higher-order confirmatory for the knowledge management scale developed for this study. Relationships among the three KM constructs (acquisition, dissemination and responsiveness) were also found in the data.

Keywords: Knowledge Management (KM); SME; Growth-Oriented

Farmers' Markets and Female Entrepreneurship; A Community Launching-Pad for low Risk Ventures

Marianne Tremaine
Massey University, New Zealand

Abstract: Farmers’ markets are part of a movement which brings people closer to the origins of the food they eat. Much of the research on farmers’ markets has centred on sustainability and food quality. However, there is another important aspect to the type of change that farmers’ markets promote. They enable prospective food growers and retailers to go into business for a very modest outlay and use their own abilities to launch a business. In entrepreneurial terms, a business that can begin with a table, a gazebo covering, some baskets or containers, the use of a vehicle and a small weekly stallholder’s fee is ideally suited to those with modest capital - which is often the case for women, particularly those who do not have paid employment or any other source of income. This research is based on
interviews with female stallholders in farmers’ markets to see how much their decision to begin an entrepreneurial venture was based on the opportunity offered by a farmers’ market, alongside their support for the ethic and principles espoused by farmers’ markets. The objective is to explore the importance of contextual factors in enabling the decision for female entrepreneurs to begin their businesses. The three case studies in this paper explore the experiences of three women who have been in business for different time periods, examining the difference that the Farmers’ Market opportunity to be an entrepreneur in their own communities for a modest outlay in terms of equipment and financial resources made in their decision to take the plunge into entrepreneurship. The research also explores the negative and positive factors present for the three women in running their businesses currently, how they weigh these factors against each other and their plans for developing their business in the future.

**Keywords:** gender and risk, community ventures, ethics and food, contextual factors in entrepreneurship

### Exploring Innovative Data Collection Tools in Social Sciences Research

**Armando Luis Vieira**

**Universidade de Aveiro - DEGEI/GOVCOPP, Campus Universitario de Santiago, Aveiro, Portugal**

**Abstract:** The Scientific Rigour Of Social Sciences Studies Is Inexorably Reliant On An Effective Data Collection Process. Traditional data collection tools, such as face-to-face, pen-and-paper, or online questionnaires are not very effective, in terms of time, money, and sample size (Churchill 1999; Hair et al. 1998). Npolls by AppGeneration (www.appgeneration.com) allows for collecting a high number of observations in a short period of time. Npolls operates on any device with the android system, enabling the researcher to create his/her own questionnaires, which will be answered by android device users worldwide, and receive the results via e-mail in Excel/csv format. It is then possible effectively use a wide range of data analysis approaches. For example, in a study on Job Satisfaction, 3,498 observations were collected in 2 days, and factor analysis (KMO=0.942, significant Bartlett’s test, cumulative variance: 63.1%), suggested 2 factors re-
reflecting the ‘Job Commitment’ and ‘Organisational Support’ facets. As evidenced, Npolls shows considerable advantages over traditional data collection procedures, despite some limitations inherent to the fact that the number potential respondent is limited to the number of android device users (which is experiencing an exponential growth). Opportunities for future research are extremely interesting, provided that Npolls is properly explored and used.

**Keywords:** social sciences, data collection, innovation