Abstracts of the Papers Presented at the 11th European Conference on Innovation and Entrepreneurship

15-16 September 2016

The JAMK University of Applied Science

Jyväskylä

Finland

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Review Process

Papers submitted to this conference have been double-blind peer reviewed before final acceptance to the conference. Initially, abstracts were reviewed for relevance and accessibility and successful authors were invited to submit full papers. Many thanks to the reviewers who helped ensure the quality of all the submissions.

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Preface

These proceedings represent the work of contributors to the 11th European Conference on Innovation and Entrepreneurship (ECIE 2016), jointly hosted this year by The JAMK University of Applied Science and the Jyväskylä University School of Business and Economics in Finland, on the 15-16 September 2016. The Conference Chair is Minna Tunkkari Eskelinen from JAMK University of Applied Sciences and the Programme Chair Iiris Aaltio from the Jyväskylä University School of Business and Economics.

ECIE continues to develop and evolve. Now in its 11th 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 illustrate the wide range of topics that fall into this important and growing area of research.

The opening keynote presentation is given by Henry Etzkovitz on the topic of "*Triple Helix Innovation in a Crisis*". A second keynote will be given by Heikki Lyytinen on the topic of "*From University Research to Social Innovations*". The third Keynote will be given by Charlotta Johnsson on the topic of "*The Berkeley Method of Entrepreneurship - A Game-Based Teaching Approach*".

In addition to the main themes of the conference there are a number of specialist mini tracks on topics including Innovation and strategy, Entrepreneurship education in action, The theory and practice of collaboration in entrepreneurship and Challenges for entrepreneurship and innovation n the 21st Century.

With an initial submission of 285 abstracts, after the double blind, peer review process there are 106 Academic research papers, 14 PhD research papers, x Masters Research paper, 5 work-in-progress papers published in these Conference Proceedings. These papers represent research from Australia, Azerbaijan, Belgium, Brasil, Canada, China, Czech Republic, Denmark, Deutschland, Finland, France, Germany, Ghana, Greece, India, Iran, Ireland, Italy, Kazakhstan, Kenya, Lithuania, Malaysia, Malta, New Zealand, Nigeria, Norway, Poland, Portugal, Romania, Russia, Russian Federation, Saudi Arabia, Slovenia, South Africa, Spain, Sweden, Thailand, The Netherlands, Trinidad and Tobago, Tunisia, Turkey, UK, USA, Zambia.

We hope you enjoy the conference. Iiris Aaltio and Minna Tunkkari Eskelinen September 2016

Conference Executives

Minna Tunkkari-Eskelinen, JAMK University of Applied Sciences, Finland **Iiris Aaltio**, Jyväskylä University School of Business and Economics, Finland

ECIE Committee Members

The organisers would like to thank those members of the conference committee who assisted in the double-blind peer review process. A full committee list can be seen here: http://www.academic-conferences.org/conferences/ecie/ecie-committee/

Biographies Conference Chair



Dr. Minna Tunkkari-Eskelinen, Dc. (Econ.) is principal lecturer at JAMK University of Applied Sciences. She has worked at the University of Jyväskylä on the degree programme in Entrepreneurship and as Secretary at the Institute of Education Evaluation. She was co-founder of the consultancy firm Confidentum Ltd. Her doctoral dissertation was published in 2005 focusing on family business from the perspective of the

next generation. Recently her research interests have been focused on sustainable tourism from the entrepreneurs' perspective and sustainability as a customer insight from Finnish tourists. She is also actively involved in innovative service design practices by co-creation with students and entrepreneurs. Currently, she is a vice member on the Board of the Entrepreneurship Education Research Association in Finland.

Programme Chair



Dr. liris Aaltio is a Professor at the Jyväskylä University School of Business and Economics in Finland. Her research is about cultural aspects of organizations and entrepreneurship, as well as in gender and diversity issues. She has authored and co-authored several books, including "Women Entrepreneurship and Social Capital: A Dialogue and Construction" and "Gender, Identity and the Culture of Organiza-

tions". Her latest work includes aspects of aging in organizations, with authored articles, and an edited special issue in the International Journal of Work Innovation. She is a board member in journals Culture and Organization, and Journal of Business Ethics and Organization Studies. She has also organized and chaired several workshops at the EIASM institute.

Keynote Speakers and Workshop



Henry Etzkovitz is a scholar of international reputation in innovation studies as the originator of the 'Entrepreneurial University' and 'Triple Helix' concepts that link university with industry and government at national and regional levels. As President of the Triple Helix Association (THA), he is at the center of a unique international network of scholars and practitioners of university-industry-government relations.

Henry is the co-founder of the Triple Helix International Conference Series, which has produced a series of books, special journal issues and policy analyses since it started in Amsterdam, 1996. He is Editor-in-Chief of the Triple Helix Journal. Henry is Visiting Professor at the University of London, Birkbeck, CIMR; and Special Advisor to the Shandong Academy of Sciences, PRC. From 2009, Henry is affiliated with Stanford University as a fellow of the Clayman Institute for Gender Research, and then H-STAR, currently Science, Technology and Society (STS) where he will offer a seminar on Triple Helix innovation and entrepreneurship in spring 2017. Prior to coming to Stanford, he held the Chair in Management of Innovation, Creativity and Enterprise at Newcastle University Business School, UK. He received a BA in History from the University of Chicago, PhD in Sociology from the New School for Social Research, and Phd Hon in Engineering from Linkoping University.



Heikki Lyytinen is UNESCO Chair on Inclusive Literacy Learning for All. Previously he was Emeritus Professor of Developmental Neuropsychology, when he led the EU-COST A8 "Learning Disorders as a Barrier to Human Development" action from 1994-1998. He co-lead the Centers of Excellence "Human Development and its risk factors" and "Learning and Motivation", both funded by the Academy of Finland. He has

been PI of the Jyväskylä Longitudinal study of Dyslexia (JLD) since 1993 and was Vice President of the UJ from 1997-2000. He is Chair of the Boards of the Agora Human Technology Centre of UJ and the Niilo Mäki Foundation. He is a member of the Academy of Sciences and Letters (of Finland, 2003). He has published more than 300 articles in scientific journals and books. His areas of recent research include dyslexia and reading acquisition and most recently digital learning environments for children at risk of reading difficulties or dyslexia.



Charlotta Johnsson has a broad range of both academic and industrial experience in the fields of education, technology and entrepreneurship. Charlotta is an Associate Professor at the Engineering Faculty, Department of Automatic Control at Lund University, Sweden, where she is involved in several research

projects. She has served as the program director of the cross-disciplinary master's degree program Technology Management (2008-2015), and she has been involved in the faculty's pedagogical activities. Charlotta has recently spent a year with the Sutardja Centre for Entrepreneurship and Technology at UC Berkeley, USA, where she participated in the development of a novel student-centric approach for teaching and learning entrepreneurship, referred to as the Berkeley Method of Entrepreneurship.



Tanja Leppäaho works as a Professor of Entrepreneurship and International Business at the University of Jyväskylä, School of Business and Economics, Finland. Previously she worked as Associate Professor at the University of Edinburgh Business School, UK. Tanja's areas of interest are international entrepreneurship, networking, family business and qualitative methodology. Her major publications have appeared in Entre-

preneurship Theory and Practice, Family Business Review, Journal of Small Business Management, International Marketing Review, and International Business Review.

Mini Track Chairs



Dr Blair Stevenson is an educator and researcher with a broad range of both academic and entrepreneurial experience in the fields of education, culture and technology. His current role is as manager of the EduLAB pre-incubator program and coordinator of the LAB research group and international partnerships within the Oamk LABs program at the Oulu University of Applied Sciences (oamk.fi/labs) in Finland. EduLAB is a per-

manent program that brings together multi-disciplinary teams of university students and professionals to develop prototypes and start-ups targeting the global edtech industry.



Dr Luísa Carvalho is an Assistant Professor at the Open University, Lisbon, Portugal and a Researcher at the Centre for Advanced Studies in Management and Economics (CEFAGE), University of Évora. She received her PhD in Management from the University of Évora (Portugal). She is visiting professor at international universities where she teaches on Masters and PhDs programmes. She is the author of several

articles published in scientific journals, international conferences, books and book chapters. Her current research interests are in the areas of entrepreneurship, innovation, internationalisation and the services sector.



Dr Alexandros Kakouris is an external lecturer in entrepreneurship and innovation at the University of Athens, University of Peloponnese and ASPETE. He holds a PhD in Physics and a MSc in Adult Education. He has been involved in entrepreneurship since 2006, researching educational issues. His special interest concerns fostering entrepreneurship and innovation to science

graduates and the support of youth entrepreneurship through counselling. He also specialises in nascent entrepreneurship and experiential learning.



Anu Puusa is an Associate Professor at the Business School in the University of Eastern Finland in Joensuu campus. Her current research interest areas are cooperatives, organizational change, organizational identity, paradigms and qualitative methodological questions. Puusa has published many journal articles and written four textbooks.



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Dmitry Shaytan is co-founder of innovationStudio, Lomonosov Moscow State University, Faculty of Economics, where he manages acceleration programs, and teaches entrepreneurial management courses. He is entrepreneur, founder and general manager of the innovation company "ETB" that designs software and hardware based innovative solutions. Educational background: MS in physics, and MBA.

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Jan Stejskal is an associate professor with the Institute of Economics, Faculty of Economics and Administration, University of Pardubice, Czech Republic. His domain is connection of the public economy in the regional scope and view. Espe-

cially, he analyses regional policy, tools of the local and regional economic development, and public services.

Mullika Sungsanit is a lecturer, an InfoDev-WorldBank consultant and certified trainer, and a former manager of Business Incubator and IP Management Office. She had developed and delivered training program for Women Entrepreneurs in Mekong and the Caribbean. Her research interests are around entrepreneurship development and managing a growing venture.

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Antti Talonen works at the University of Tampere as a doctoral student and project manager. His doctoral thesis focuses on competitive advantages of mutual insurance company. The thesis puts specific attention to sense of psychological ownership. In addition to this, Talonen has carried out research and development projects related to cooperatives and mutuals. Latest projects include development of a crowdfunding platform for cooperatives and research on shared value potential of cooperatives.

Shailaja Thakur graduated with a bachelors' degree in Economics from Delhi University. Subsequently, she did her post graduate studies of an MPhil and PhD from Jawaharlal Nehru University, India. Shailaja has worked in the private sector for five years and has more than ten years of teaching experience. Currently, she is teaching Economics at Sri Venkateswara College, Delhi University.

Anna Ujwary-Gil has a PhD degree in Management from the Warsaw School of Economics in Poland. Since 2011 she has been an editor-in-chief of the Journal of Entrepreneurship, Management and Innovation (JEMI). In 2010, her book titled Intellectual Capital and the Market Value of a Company won a prestigious award from the Polish Academy of Sciences. She is a Project Manager within the National Center for Science and Experience Researcher of the 7th FP of the EU international project of MC IAPP.

Alroaia Younos Vakil has 18 years of work experience which is a blend of corporate and academics and specializes in the area of entrepreneurial development in SSIs. He has carried out consultancy work for the ministry of cooperative and

commerce organization, as well as private company. He has published more than 80 research papers in various international journals. Younos has presented 65 papers in various international conferences in different countries. Similarly, he has published 15 books. Younos had done 15 research projects on different issues of entrepreneurship development in SSIs. Younos at the present is as a head of DOS in management, IAU.

Robin van Oorschot has a background as an industrial designer. For his PhD research at the Delft University of Technology he is investigating how to use Design theory to improve Entrepreneurship theory and how to use Design education to improve Entrepreneurship education.

Qian Wang, holds an M.Sc. Degree in Economics and Business Administration, and is studying as a doctoral student in Jyväskylä University School of Business and Economics, University of Jyväskylä, with management and leadership as a major. Her research interests include entrepreneurship, entrepreneurship education, women entrepreneurship, social entrepreneurship, qualitative meta-analysis and ATLAS.ti.

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Keynote Outlines

From University Research to Social Innovations: Graphogame and a sustainable way to support learning capacity of children

Heikki Lyytinen

This presentation is based on a story about how university research can lead to social innovation and entrepreneurship. The story is about a digital game for children called Graphogame, which has been designed to help teachers identify and prevent problems that children are having when learning to read. The game and the way it has been commercialized is university research-based and this presentation describes the 20 year process, from the original idea to full commercialization.

The Berkeley Method of Entrepreneurship - A Game-Based Teaching Approach

Charlotta Johnsson

Theory, Practice as well as Mindset aspects are of importance when students learn about entrepreneurship. The Berkeley Method of Entrepreneurship (BMoE) stresses the importance of including aspects related to Mindset, and uses games as a vehicle for including it in the entrepreneurship education. The game-based teaching approach lets the students explore his/her current mindset and compare it with that of successful entrepreneurs.

Research Papers

A Study on the Effectiveness of Risk Management Implementation Among Malaysian Tier 1 and Tier 2 Cooperatives

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Abstract: The rapid growth in the cooperative sector is evident by the number of the establishments, which stood at 12,493 in 2015. Malaysia's cooperatives are diverse in terms of type, size and degree of complexity, thus, requiring the implementation of an efficient risk management. This study aims at assessing the extent of implementation of risk management in cooperatives and examines the awareness and commitment of management staff on risk management. Also examined is the establishment of specific risk management committees and risk management units in cooperatives. The study covers 40 Tier 1 and Tier 2 cooperatives and 194 respondents comprising management staff involved in top management meetings. Data were collected by way of questionnaire survey and analysed using descriptive statistics, comparison of mean, correlation analysis and regression analysis. Among the salient findings is that the level of awareness on risk management is higher in Tier 1 cooperatives than in Tier 2 cooperatives.

Keywords: effectiveness, cooperative risk management, commitment

Does an Undergraduate Venture Creation Programme in a University Achieve its Objectives?

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Abstract: Entrepreneurship education is now seen by many as an important part of the future of Higher Education. It helps to develop an entrepreneurial mindset in students, which is a key to graduate employment, as well as self-employment. An important, but currently very small concept in the development of entrepreneurial education and training are Venture Creation Programmes (VCP). The term VCP emerged from research at Chalmers University in Sweden in 2012. It was aimed to explore experiential entrepreneurship education as a differentiator to other types of education. VCPs are Higher Education programmes which have real-life ventures as their primary learning instrument and part of the formal curriculum. VCPs include business start-up as an important part of the programme. Students must

establish and run their own businesses as an integral part of the VCP programme. Students study academic theory, then immediately use it in their real life businesses. VCPs are the bridge between knowledge producing academics and value creation processes in society at large (Lackeus, 2013). It is now over 10 years since the world's first undergraduate VCP was launched by a UK university. This paper will present information about the programme and the longitudinal research that has been started to identify if this VCP is achieving its objectives, as stated in Section 6. The experiential nature of the VCP develops the students' entrepreneurial self-efficacy (ESE) and flexibility, which should enable them to develop successful careers. This paper will also show anecdotally the way in which the VCP students mature very quickly, by learning about themselves, confronting risk and working together in teams to develop their ideas in a real start-up business and learning environment. Business failures, as well as successes occur, but by the end of the VCP the students' academic results are good, with 64.1% achieving First Class or 2.1 honours degrees. This paper shows that good honours degrees can be achieved by engaging students in experiential learning. It will also show that a practice based curriculum works well when students are studying during four nine week terms each year for the two years they are on the programme. Finally this paper presents a summary and review of the reflection of three culturally diverse students on the 9th cohort, on how the innovative VCP has changed their understanding of and approach to entrepreneurship, business and life.

Keywords: enterprise education, venture creation programme, action-based learning, experiential learning, immersive education, transformational entrepreneurship, start-up

Humour Matters in Service Design Workshops

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Abstract: Humour is present in our everyday life, as well as in companies' boardrooms, but it could be used more strategically in business innovation. Although there is an ample amount of research on humour in advertising, and there is increasing interest in emotions in business research, there is a gap in how to use humour in order to advance business innovation: creating new products and services. Service design thinking processes offer an opportunity to study humour in innovation workshops. The present paper discusses how humour could be studied in service design workshops of nine companies involved in a Tekes-funded humour-related research project in 2016. The purpose of the paper is to suggest a research framework in order to get more understanding of the role of humour in service design processes, particularly in workshops and their outcomes. The main

research question is whether humour advances the process and the outcome of service design workshops and if yes, how. Humour and playfulness will be defined, and how to measure them discussed. The paper will accomplish the following: firstly, theoretical foundations are laid for humour, playfulness, humour in group work and humour in workshops' outcomes. Secondly, we propose a research agenda for empirical studies. Expected results from the empirical studies will provide new insight into the importance of humour in service design workshop processes and outcomes. The contribution of the present paper will be two-fold: theoretical — a research framework for analysing humour in service design processes (process and outcome) and managerial — how humour can be used to improve the service design workshops in companies, e.g. to improve the quality of the process, as well as the results. We are particularly interested in the possibility of integrating humour in business models and value propositions of companies and the present paper may contribute to this aim.

Keywords: business innovation, humour, playfulness, service design, workshops

Entrepreneurial Transformation Approach: UQU Path to Establish a World Class University

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Abstract: UQU decided to adopt an entrepreneurial approach to transform itself into a World Class University. In 2010, the university formed and appointed the Vice Presidency of Business & Innovation (VPBI) to take the responsibility of developing, implementing, and leading the entrepreneurial transformation strategy of the university. In 2011, the VPBI established the Office of Intellectual Property (UQUIPO) as well as the Education, Research and Innovation Support Fund. In 2012, the University established the Institute of Innovation & Entrepreneurship, a pilot entrepreneurial model for the university to fulfil the new roles in the era of knowledge economy. These roles include developing innovation and entrepreneurship programs, expanding the cross-disciplinary R&D, technology transfer and incubating, and synergizing the development of new businesses. The Institute has launched many offices and initiatives, including the office of Technology Transfer, as well as three Business and Technology Incubators. In the same year, the University also established Makkah Techno Valley, the commercialization arm of the University and its bridge to integrate research, innovation and market. Over the last few years, UQU has achieved significant progress on its journey to establish itself as a world class University. The University competes in the QS international ranking. Moreover, in 2014/2015 the university rose higher in ranking than some British and American universities. The aim of this paper is to draw on some of the unique dimensions of the experience of UQU to establish a world-class university. Towards this aim, the paper will examine the main features of the entrepreneurial transformation approach used to develop an integrated culture between the academic and entrepreneurial worlds within and beyond the University. The paper will also address the main challenges and barriers of the transformation practices in UQU to build and develop a new system based on innovation and entrepreneurship and to support knowledge economy.

Keywords: Umm Al Qura University, entrepreneurial transformation, world class university, innovation and entrepreneurship

Social Entrepreneurship Development in Kazakhstan: Problems and Perspectives

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Abstract: Today, entrepreneurs and businesses with social responsibility around the world are supported by non-profit organizations, foundations, governments, and individuals worldwide. However, despite the fact that the benefits of social entrepreneurship are clear to many, there are many difficulties in its development. So far, not even a consensus on what constitutes a "social enterprise" and who can be called a social entrepreneur. Disputes between scientists, experts and practitioners of social entrepreneurship on what the organization regarded as a social enterprise, and which are not, do not stop. Every social entrepreneur is partly altruistic, ready to work for the benefit not only themselves and their families, but also to a certain social group. Social entrepreneurship is developing actively in Kazakhstan. Basically, experts have identified four features of social entrepreneurship. Firstly, it is the social impact, i.e. the activity of the company should be aimed at mitigating the existing social problems. Secondly, it must be characterized by innovation, that is, in their work the company must use new and unique methods of work. Thirdly, it must have signs of financial stability. Finally, the fourth feature - is scalability, i.e. the possibility to transfer their skills to other companies, markets and even countries. The aim of research is to assess the current state of social entrepreneurship development in Kazakhstan and explore further ways to strengthen the practice.

Keywords: social entrepreneurship, innovation, social impact, social mission, NGO sector in Kazakhstan, National Chamber of Entrepreneurs of Kazakhstan

Strategic Entrepreneurship in Enhancing Resources and Innovation in England

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Abstract: This paper concerns the identification of strategic entrepreneurship as a vehicle for supporting operational capacity of voluntary sector organisations in the South West of England. In particular, this support refers to enhancement of current and future operational financial, human, operational and other resources in conjunction with organisational innovation attributes that could potentially boost the sector's entrepreneurial operations. Methodologically the paper relies upon qualitative research that consists of semi-structure interviewing and secondary data' collection. The aim of using interviews is to explore and analyse the importance of a framework as it is applied into day-to-day operational activities. They were carried out through with selected stakeholders such as governmental agencies, voluntary groups and private firms. In its final form the paper will create conditions for a case study strategy that will not only explore but most importantly will explain circumstances of the impact of strategic entrepreneurship to the voluntary organisations in the South West of England. Taking into account that existing relevant literature seems to be somehow limited on the matter, this paper envisages to identify potential elements of organisational effectiveness within the voluntary sector for both mid and long terms. Based on the initial findings of the research conducted so far it can be argued that there is an increasing number of voluntary organisations of all sizes that have been pursuing entrepreneurial activities with a strategic purpose however this comes at a cost which can be summarised into two suggestions: a) Governmental agencies and local authorities still play a significant role with regard to public and other services which would otherwise be delivered by the voluntary sector; b) there is a mix of success rate with respect to entrepreneurial activities in important aspects of life such as health. Indicative they might be these are some important first-come outputs about the significant role strategic entrepreneurship can play as a process of that can affect every-day life of specific localities.

Keywords: strategic entrepreneurship, resources, innovation, South West of England

The Evaluation of Students Meta-Competencies and Management Skills in the Context of the Final Year Project

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Abstract: This paper focuses on the description of an experience of the Final Year Project (FYP) systematic evaluation carried out in the Business Management degree program. The description of the experience is based on the implementation of the FYP evaluation system, which has allowed us to reflect on the most appropriate methodology and processes for the evaluation of associated competencies, especially considering the role played by the evaluation agents. Therefore, this paper tries to identify the extent to which student perceptions of their development of the FYP include meta-competencies. Framed by this analysis the study wants to propose the elaboration of an integrated assessment framework that ensures the appropriated meta-competencies build-up and evaluation. In this paper we present the preliminary results from a survey where we asked undergraduate students from a Business School in Spain about which skills they have developed in their elaboration of the FYP. The outcomes coming from our preliminary analysis showed us that the most valued skills by the students were initially combined in two main factors: the first factor was related to organizational and analytical capacities while the second factor would be represented by competencies related to creativity. Altogether, the main important aspect was the identification within the literature that there is a lack of understanding on how to define and examine the meta-competencies in the context of the FYP. A gap we intent to contribute to by exploring this study.

Keywords: business management, final year project, metacognition, competency based assessment, higher education, meta-competencies

Specific of Sales Volumes Forecasting for Dairy Products in Russia

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Abstract: The article is focused on forecasting of dairy products sales. We estimate the probability of buying in innovative product by a consumer on the base of the model including a set of various factors-determinants. The proposed methodology has been tested using real data on dairy products sales in Danone Russia, the largest producer of dairy products in the CIS area. The quality of the model exceeds the quality of existed models used by the company.

Keywords: forecasting, new products, supply chain collaboration, cooperation and partnership, panel data

A Strategic Entrepreneurship Model Based on Corporate Governance in the Iranian Manufacturing Enterprises

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²Business Management Dept. of the Allameh Tabataba'i University, Iran **Abstract:** Recently too much attention has been paid to the relationship between organizational entrepreneurship and corporate governance (CG) and their effects on the firm performance. This research was carried out to study this relationship among the listed Iranian manufacturing firms. 80 companies from various industries are studied. To analyze data, Partial Least Squares (PLS) method of Structural Equation Modeling (SEM) was used. Findings indicates that the presence of executives in the board, the amount of ownership by the board members and also compensating board members according to the long-term performance of the firm has a positive effect on intensity of the strategic entrepreneurship (SE). However a negative result was found for the amount of stocks hold by the institutional investors. Moreover, three moderator variables namely company age; company size and company's past performance have strong impact on the relationship between CG and SE. **Keywords:** entrepreneurship, corporate entrepreneurship (CE), strategic entrepreneurship, corporate governance, SEM, PLS

Innovation Strategies of Small Russian Firms

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Abstract: This study analyzes the different types of the innovation behavior of small firms. At the first stage, the analysis of behavioral distinctions between small firms and medium-sized companies as well as large enterprises is undertaken. Particularly, small firms' contribution to innovation activities of the country is considered. It is demonstrated that small businesses tend to a higher degree to create new-to-market innovations. By comparison, medium-sized companies and notably large enterprises focus on spreading innovations already known in the markets. In addition, the study researches the use of different-sized companies the various innovation types including but not limited to open innovations. It is also shown that small Russian firms tend to process innovations. Besides, the considerable part of small firms' innovations is created by others, while medium-sized companies give precedence to their own developments and large enterprises are intensively involved in cooperation processes. At the second stage, the paper analyzes the strategies of small businesses depending on their size-class. As a result, it is established that the tendency of innovation diffusion growth remains for small firms with the increase in size. In spite of significant marketable novelty, the lowest shares of innovative products sales in turnover in micro businesses are observed. Diffusion is further increasing along with the size growth. Research and development costs and costs to buy machinery and equipment connected with innovations prevail in the cost structure of innovations. High expenditures for production design pertain only to some groups of small firms, though. The main sources of innovation finance are equity capital, public funds, loans and credit lines. However, concessional lending is an essential factor only for the smallest firms.

Keywords: innovation, small firm, small business, Russia, innovation process

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CEE Cross-Country Comparison of National Innovation Systems Efficiency: DEA Approach

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Abstract: Innovations improve the prosperity and living conditions of inhabitants of every economy. Therefore they is a priority of social and economic development policy of the European Union (EU). The biggest portion of the EU budget for 2007-2013, equal to 170 billion EUR, was given to the new EU members from Central and Eastern Europe (CEE) for the increase of the competitiveness and innovation of their economies. Overall national contribution amounted nearly 40 billion EUR. As the EU beneficiaries those countries were able to significantly expand and stimulate national innovation systems. The purpose of this study is to check whether the innovation policy of the Central and Eastern Europe countries has been utilized efficiently, and if yes, which of the CEE coutries, including Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia and Slovakia, are the leaders. Analyzed data covered the 2007-2013 period. The results indicate that not every country covered by the research used enabling funds efficiently. On the other hand, we found out that the leaders of the effectiveness in the field of innovation policy were Latvia and Estonia. We use inputoriented Data Envelopment Analysis (DEA) input-oriented. We conduct research in a comprehensive way, taking into account, key sources of the expenditure on pro-innovation activities, such as the EU funds and national contribution as input data. Subsequently all the inputs have been related to a wide range of key indicators to measure the effects of policy innovation in a field of science, technology and macroeconomic of each country, which has been used as output data. Additionally, the results were also collated with independent innovation rankings, drawn up by the governments as well as NGOs. We also indicate which Central Eastern Europe countries and their innovation systems can serve as a model for further development of innovation policy in the European Union budgetary perspective of 2014-2020.

Keywords: national innovation system, efficiency, DEA, CEE countries

Smart Specialisation: Does it Really Matter to IT SMEs?

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Abstract: Smart specialisation is a new strategic policy framework which the European Commission has adopted to support co-ordinated Research and Innovation (R&I) investment efforts among EU Member States and regions by prioritising their endeavours through the identification and exploitation of existing strengths and capabilities when using regional funding. It is designed to support and assist entrepreneurs to discover what their firms should specialise in to become more competitive and consequently contribute to overall economic growth and job creation. This study explores the utility of this framework to owner-managers of Maltese IT SMEs through a mixed methods, exploratory "case within a survey" eventually focusing on three export-oriented firms that invest in R&I and specialise in the development of software products and services for specific niche markets. Grounded Theory approaches are used to analyse, interpret and explain the findings, generating theory inductively from the rich data generated using flexible bottom-up approaches. The study explores the tension that has developed between software product orientation and software service orientation in the firms as a result of an increasingly blurred distinction between the two when the mode of delivery is through the cloud. It reveals that in spite of the higher interest by investors in software products, custom projects delivered as a service can become a crucible for specialisation, productisation and eventually internationalisation. In this context the role of the entrepreneur becomes crucial in their choice of strategy, partnership, method, innovation, technologies and resources. These must focus the firm's collective endeavour in securing sufficient "trust" from their first overseas client - and after that, repeat business. Entrepreneurial patterns are therefore revealed in the way opportunities are discovered by the ownermanagers and differentiated strategies developed to target niche areas in spite of the perceived drawbacks of insularity and small firm size. The study reveals that in Malta this has happened regardless of smart specialisation. However, the conclusions indicate that the framework can be an aid to support policy and to replicate the patterns for the benefit of software SMEs in other regions or Member States.

Keywords: smart specialisation, software SMEs, case studies, cloud computing, entrepreneurship, EU funding

Inter-Organizational Network Management in an Innovation Context: Combining ego and Whole Network Perspective

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Abstract: Although there is growing interest into the research field of interorganizational innovation networks, few attempts have been made to develop systematic methods for the active management of such networks. This is especially true for approaches combining the view of single actors and the network as a whole. In response to this gap, this research presents a new method for the management of inter-organizational networks that can help to increase innovation outcome. The introduced approach accomplishes two goals. Firstly, it provides guidance for the measurement of the current collaboration status of a network, its optimal future collaboration status and the gap between them. Secondly, it provides systematics for the development of clear network management strategies for each network actor for closing this collaboration gap. As a result, better exploitation of existing collaboration potential is expected to increase innovation output. The method builds upon work by Kohl et al. (2015) who approached network management on a whole network level providing a solution for the management of entire networks and Ojasalo (2004) who suggested a network management method taking the perspective of a single network actor on the so called ego level. The novelty value of the presented method lies in the demonstration of how these different levels of network management can be combined. The two levels of analysis are linked through reliance on the same data set. The developed method is demonstrated through a case study. The analysis builds upon a questionnaire asking network actors for an estimation of the current collaboration status and a future collaboration potential amongst them. Social network analysis software was used to calculate network measures such as the level of density and to visualize the network graphically. As a result customized strategies for improving collaboration within the investigated network are presented.

Keywords: innovation networks, network management, network assessment, ego network perspective, whole network perspective

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How Responsible Innovation Strategies Emerge in Very Small Enterprises: The Case of a Small Wine-Growers' Cooperative

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Abstract: Studying strategy development processes organically in Very Small Enterprises (VSEs) allows us to consider the thoughts and visions of entrepreneurs, as well as to understand the role entrepreneurs play in each of the development phases. In a context where chance plays a key role, how new projects intertwine is proof that every decision and every leader's act has an impact on how an organization evolves. Even if this strategic spiral follows a predefined plan, its realization is surprising given the importance attributed to initiatives and learning. In these conditions, is it possible to envisage innovative and responsible entrepreneurship? It all depends on what projects managers imagine, and on how motivated they are to extend the framework for accomplishing them. The case of the small cellar of Beaucaire gives an original managerial exemple of responsible innovation strategy. Indeed, this company, hundred-year-old, atypical by its governance mode since 1960, compound of seven employees, managed to revitalize over a long period (twenty three years) an innovative strategy being, certain times, same, precursory on the vitiviniculture sector in Languedoc-Roussillon. This light industry specialized in the manufacturing of a table wine " vrac ", managed to develop a sale " in bottle ", directly to the private individual, and to make continue its activity in spite of the successive and deep transform met by this business sector, since 1970.

Keywords: strategy, innovation, sustainable development, very small enterprise, entrepreneurship, learning

Cooperation vs. Firm-Based Innovation: A Sectoral Comparison in Portugal

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Abstract: In today's knowledge-intensive economies, the enterprises can have a strong economic and social influence as "market protagonists". Facing today's economic instability they ought to provide a constant stream of innovations to

clients. Researchers suggest that firms can reshape the market through their innovations, for which can contribute some external expert knowledge. The process of developing an innovation may imply three types of approach: make; buy or cooperate with other agents to acquire specific competences or knowledge. This last occurs when the firms' internal knowledge or skill-base is not sufficient or effective and is conveniently complemented with external sources. Firms' cooperation, among them or with clients or other stakeholders, and its potential for innovation is not new. In this paper, our aim is to identify the sectors more willing to engage in cooperation initiatives in order to accomplish innovation. Thus, this paper is structured as follows: Introduction; 1. Literature Review (Innovation and its assets; Disclosing the process of innovation; Open innovation; Cooperation for innovation); 2. Research Design (The CIS instrument; Sampling); 3. Results (The nature of the innovation process by sector; cooperation-based vs. firm-based; The scale and scope of cooperation); Concluding Remarks. Using descriptive statistics. the first step will be to identify the sectors more willing to engage in cooperation initiatives in order to accomplish innovation. Secondly, for those sectors a more detailed analysis on the scale and scope of cooperation is developed. For this study a secondary dataset was used from the CIS-2012 (DGEEC, 2014). The CIS, operation acronym in the Eurostat for Community Innovation Survey, is the main statistical survey (mandatory for EU member states) on innovation in companies. The universe contemplates Portuguese companies with 10 or more employees belonging to the NACE codes. The INITIAL sample consisted of 9423 companies. 6840 valid answers were considered.

Keywords: process of innovation, open innovation, cooperation for innovation

She is the Founder: Who is the Emotional Leader?

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Abstract: In FB research some studies have investigated the position of women involved as successors in the succession process, but very few studies have analysed women as incumbents. Until a few years ago, this issue would have been considered of little importance, given the very small number of women-owned businesses involved in a succession process. However, the increasing quantity of female firms raises questions about the specificities of a succession process from mother to son. This kind of process could indeed be a recurring one in the coming years. Apart from a few exceptions, in analyses of the succession process, women

have often been described as mediators between family members, patient wives, mothers responsible for bringing up the future heir, or women living in the shadow of their husbands, fathers, sons, or brothers. An important role in transmitting family and business values to the children has been recognised by women. Women in this role have been defined as "chief emotional officer" (Jimenez, 2009), being that they hold the emotional leadership of the FB. But what happens when a woman, especially a mother, is the main actor of the succession process? Can she also act as emotional leader? Which behaviours reveal that she is acting as an emotional leader? And how does this role affect the outcome of the succession process? To answer these research questions, this paper presents an eight-year longitudinal case study (Yin, 2013). The main character is a woman who founded and ran a business and recently passed the leadership to her son. Results show that even if she was the founder, owner and leader of the business, she never lost her role as emotional leader. This behaviour has proven to be very beneficial for the succession process and business survival.

Keywords: family business, women-owned family businesses, women entrepreneurs, succession, mother-son succession

FDI, Environmental Regulation, Innovation Performance of China's Enterprises: Moderating Effect of Urbanization

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Abstract: Innovation in the process of new-type urbanization is a major strategic choice for the inflows of foreign capital and economic development. Based on Chinese Industrial Statistics Database of 2004-2007 and data at province-level, this research investigates the effect of urbanization, FDI and environmental regulation on enterprises' innovation performance. It is found that the FDI from U.S. and environmental regulation will hinder the creativity of Chinese industry by the decrease of R&D. However, the FDI from U.S. enhances the domestic enterprises' ability to attain compensation from innovation following the environmental regulation. Meanwhile, we confirm that environmental regulation can contribute to the innovation spillover of FDI from the United States. In addition, the effects of FDI from EU and Japan are further examined. Unlike the FDI from U.S., the FDI from EU and Japan both have the positive innovation spillover effect but through the same way as the former. Further analysis based on "innovation-driven effect" of urbanization is developed, and we find that urbanization has innovation-driven

effects of FDI from the United States and the European Union outperform that from Japan at a restrained degree. This research is developed from the dimension of urbanization, FDI, environmental regulation and innovation performance, investigating the role of FDI in environmental regulation, environmental regulation in FDI, their relations with innovation performance, and also the effects of urbanization, aiming at demonstrating innovation, innovation-driven and innovation-compensation effects of FDI and environmental regulation under the background of new urbanization. According to the empirical results, China is suggested to extend the channels of foreign investment, encourage environmental-friendly FDI, motivate enterprises to upgrade the core technology and facilities of energy conservation and environment protection, improve domestic enterprises' ability to handle with environment regulation, inspire technological entrepreneurship, thus to achieve the growth of national economy.

Keywords: FDI, environmental regulations, innovation performance, innovation-driven

Implementation of Crowdsourcing Into Firm's Innovation Strategies: The Case of B2B Crowdsourcing

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Abstract: Crowdsourcing is a Web-based model of innovation and collaboration that provides businesses with the opportunity to receive more inflow from the firms' internal and external environment compared to traditional "closed" innovative and collaborative practices. Crowdsourcing gives firms multiple advantages, notably work force scalability, diversity of crowd workers, a variety of novel ideas, and rapid solutions. Moreover, crowdsourcing can result in impressive cost savings for businesses using this model. Firms also benefit from the additional publicity involved. In addition, because crowdsourcing provides firms with access to future customers, they can make more accurate market predictions and adjust their strategies to crowd expectations. Because the existing literature on crowdsourcing was sparse with respect to empirical evidence of the impact of crowdsourcing on firms' business and innovation strategies, the general objective of this study was to assess the impact of implementing crowdsourcing into the business and innovation strategies of a company. The literature review revealed also that crowdsourcing is used mostly by firms representing B2C industries. Therefore, this research was particularly aimed to study the implementation of crowdsourcing in a firm representing a B2B industry, such as railway manufacturing. The intention was to examine whether or not crowdsourcing can change a firm's innovation culture, to identify obstacles to crowdsourcing implementation, and to understand the limitations of the crowdsourcing model in B2B setting. Based on the research goals and the extent of the current knowledge on crowdsourcing, a qualitative, exploratory, and descriptive case study was deemed an appropriate research strategy.

Keywords: crowdsourcing, B2B, innovation, collaboration, case study

Managing Creative Innovation Team Composition: Diversity of Personalities and Innovative Outputs

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Abstract: The importance of teams in the successful functioning of modern organization is widely recognized. So as innovativeness of the company is known as a main source for competitiveness in the global market nowadays. Since innovation process is closely linked with creativeness much attention was paid on creativity and innovation management in all the levels: individually, in a team, company, or even society. A dominant way of thinking about teams with respect to their capacity for creativity and innovation usually seems to be input-process-output models, in which variety of inputs combine to affect intra-group processes and, in turn, influence team outputs. In fact, most studies have been focusing on the input parameters as a context that surrounds a team or diversity of skills, competences, gender, professions when analyzing inputs from the individual perspective. Thus the personality composition of teams have been studied in order to understand combinations of team members' individual characteristics, as reflected in team-level, which would enhance creativity and innovation. What is missing is an analysis of how diversity of personalities in team composition contribute to innovation at the project level. Thus the aim of this paper is to provide a conceptual model on composition and performance management of creative innovation teams. Constructed conceptual model that derives from literature review is empirically tested conducting a research on creative innovation students' teams and their performance. The new methodological approach to study diversity is applied that comprises not only the mix of personalities, but either evaluates team roles taken by the members. Such analytic approach enables to investigate the importance of diversity in personalities and disclose possible performance patterns of creative innovation teams resulting different innovative outputs.

Keywords: creative innovation team, team performance management, team composition, diversity of personalities, innovative output

Can the Social Entrepreneur Save us? The Role of Government in the Social Entrepreneurship Equation: The Case of Afghanistan

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Abstract: In the last decade, social entrepreneurship has become a popular tool for communities in the developing world to address some of their most pressing social dilemmas. The premise of the social entrepreneur is that business cannot be separated from the social environment, from people or from nature (Preto et al. 2015). As traditional models of governmental aid and developed world intervention has proven unsuccessful in alleviating many of the global ills that plague developing communities. Individuals and the communities that surround them have looked to their own solutions to attack the issues that affect them the strongest. This is where the bulk of academic research has focused; defining the field and assessing impact. Yet despite a resolute determination to confront some of the biggest social challenges affecting the planet, social entrepreneurs are recognizing the tremendous and in some instances insurmountable blockades that exist where government systems are non-functioning and national security nonexistent. The question is a pertinent one...Can social entrepreneurship thrive, despite a lack of security and without crucial government assistance? This is the research question this paper seeks to address, as we explore the role of government in creating a space for social entrepreneurs to thrive or fail. Following the work of Zhang and Swanson, (2014), we examine the impact of market, institutional and state failures in curtailing or facilitating the development of socially oriented business ventures. Over 400 students across three cities in Afghanistan were surveyed about their perceptions about social enterprises. Findings indicate that these potential entrepreneurs are optimistic about the future of Afghanistan and see social entrepreneurship as a valuable tool to address issues in their communities, generate jobs and create change.

Keywords: social entrepreneurship, Afghanistan development, social entrepreneur, developing world business models, social innovation, non-functioning government

Recreating Innovative and Meaningful Workplaces

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Abstract: This study is about organizations that have been able to combine high job satisfaction with good productivity and profitability, i.e., they are able to operate profitably while being recognized as the best work places in Finland. These organizations are called alternative organizations. They have consciously rejected many traditional organizational practices like rigid hierarchies, administration, order and control. The ways of working lean on continuous learning and improvement, customer orientation and collaborative development. These companies continuously ensure that they are on the right track in customer projects and they let employees take initiative and responsibility. The importance of shared objectives is recognized and people are brought together to figure out the shared purpose. Usually the work happens in self-organized teams. Findings from alternative organizations have raised a lot of interest also in traditional companies, which are interested in questions such as what ultimately can be learned from alternative organizations and how to increase self-organization? This study aims at describing how a traditional company can recreate its structures to become a more innovative and meaningful workplace. The alternative organization in this study is in the information technology business. The data was collected from three theme interviews. The analysis produced a description of an organization which has abandoned traditional organizational and management practices. Then, a survey was conducted for a more traditional company in which the personnel evaluated their working environment. The researchers then analysed how alternative and traditional companies differ in various aspects and how the traditional company could develop in those aspects.

Keywords: complexity, alternative organizations, innovation, ways of working

A Conceptual Framework for Understanding the Phenomenon of new Ways of Work

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Abstract: A review of the digital marketing literature suggests that it is important to understand that what applies in marketing management in the past and in traditional marketing context may not create success of tomorrow. It is believed that digital technology has an effect on the implementation of marketing. Value creation is seen as the core purpose and central process of marketing management.

To be able to operate in the digital environment businesses have started to look for possibilities to renew the ways of working in order to boost product or production innovation and the productivity of the organization. This suggests that also the management needs to change. The practices that enhance the operations of the company may vary, but according to prior literature, highly productive ways of working are such that they decentralize the organizational decision making and problem solving and increase the employee commitment. Thus, the aim of this study is to create a conceptual framework which describes the phenomenon. It integrates four major perspectives: the new digital marketing environment, the characteristics of the value proposition and creation processes in the organization, the characteristics of new ways of work and the characteristics of tools that can may help to change the current organizational practices. We build up the constructs from prior literature. Overall, the framework deepens the understanding the current and new practices of value creation processes from organizational perspective. In order to optimize the value creation in the future, it is important to understand if current practices can be organized and managed in a new way. Another advantage of such framework is that it may direct the future empirical fieldwork, data analysis and findings.

Keywords: digital marketing, marketing management, value creation, new ways of working

Interfaces in Entrepreneurship Development: Between Tradition and Innovation

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Abstract: The linkage between tradition and innovation involves specificities and different degrees of complexity, depending on the entrepreneurial activity and economic sector. The paper adopts an institutionalist approach to study the relation between tradition and innovation through the discussion of a specific case: the introduction of innovations in cork production and transformation in a Portuguese territory: Coruche. We are dealing with an apparent paradox: institutions involve tradition and stability but they also favour change and innovation. It is precisely their stable and routinized nature that creates the conditions to change and innovation. Past experiences create knowledge, competencies and routines, which are context specific and can be used when individuals or organizations face

particular problems or have to make choices. The linkage between past and present, routine and change is related to the simultaneously constraint and enabling nature of institutions. However, the interplay and dynamics between what seems to be opposite aspects of institutions (stability and change; restriction and enabling) should be assessed in particular contexts, considering that the development of entrepreneurial activity occurs in and is shaped by different and specific institutional frameworks. The results of this research remit to specific dynamics and tensions between tradition and innovation in cork industry. They give relevant insights to the study of the articulation of tradition and innovation in entrepreneurship processes. These outcomes also present important challenges to the maintenance and competitiveness of a central and traditional sector in the Portuguese economy, which has gone through a process of revival through innovation and entrepreneurship.

Keywords: innovation, tradition, cork, institutions

The Adoption of a Finnish Learning Model in the UK

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Abstract: Tiimiakatemia is a successful entrepreneurship education programme developed in Jyväskylä, Finland, over the last 23 years. Under the name "Team Academy" the philosophy and methods have spread across Finland and to 12 other countries including the UK. Tiimiakatemia remains close to the centre of Team Academy but the two are now discrete. In this paper we reflect on the experiences of coaches and educators in the UK in adapting and implementing a Team Academy-style programme. We ran focus groups, and interviewed coaches from Newcastle Business School and also from other UK universities involved in adopting the same Finnish learning model. The interviews were either informal or semistructured to allow a variety of experiences to surface and to capture evidence of value and challenge from unpredicted quarters. Observations were also drawn from informal discussions with student entrepreneurs. A number of key themes emerged during the project. UK participants tend to be younger than their Finnish counterparts with consequential differences in levels of experience, independence and maturity. Newly founded Team Academies have a steep learning curve in the development of a sustainable culture, and a shared vocabulary is an important factor with positive and negative implications. The international Team Academy network is a major source of support in the sharing of best practice and generation of new ideas. There will always be a tension in the UK between the drive to create and apply innovative teaching methods and the formal obligation to collect formal evidence to justify academic awards to programme participants. We also reflect on the importance of fees, travel and the philosophy of assessment.

Keywords: education, entrepreneurship, innovation, learning-by-doing, team academy, UK, Finland

The Study of Entrepreneurship in Iran and Countries That are Members of Global Entrepreneurship Monitor

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Abstract: The purpose of this study is examining entrepreneurship in Iran and states that are members of global entrepreneurship monitor. In this study the question is that, what are the indicators of the effectiveness of entrepreneurship? What is the highest weight assigned to each criterion? And finally, how is the ranking of the indicators? Thereby we would be able to achieve effective indicators of entrepreneurship. And the research methods employed in this study matched with the target application in terms of data collection are descriptive survey. The research territory is Iran and 22 countries of the OECD countries. The methods used to rank components are: Dimatel technique, AHP, Vikor, Pearson-Test and Structural Equation Monitor (SEM). Here are the results of the criteria ranking: (1).emerging entrepreneurship,(2) .understanding entrepreneurial capabilities. (3).understanding opportunities, (4).entrepreneurial tion,(5).stabilized entrepreneurship,(6).starting-up entrepreneurial,(7).New entrepreneurs, (8). Fear of failure. The results of Structural equation modeling to test the hypothesis in this study indicate that standardized coefficient of 1.01 and significant coefficient of 3.20 (greater than 1.96) between these two variables, is relative to the impact of entrepreneurial perceptions entrepreneurial activity.

Keywords: entrepreneurship in Iran, entrepreneurship global monitor (GEM), DEMATEL technique, AHP, Vikor, structural equation modeling

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Strategy, Structure and Processes to Foster Student Entrepreneurship: The Case of Illinois Institute of Technology (Illinois Tech)

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Abstract: Creating a new generation of young high impact entrepreneurs is one of the important roles of the most prestigious universities of the world. To do that, there is a need to not only develop a set of entrepreneurial courses, activities and related projects, but also articulate them as a part of an overall Entrepreneurship and Innovation strategy. The main objective of this paper is to report and discuss the strategy, structure and processes developed by Illinois Tech, a leading tech university in the Midwest of the USA that lists entrepreneurship education as a core value in its mission. The strategy is driven by creating a strong entrepreneurial culture across the campus, as well offering opportunities to student entrepreneurship hands-on projects in all the courses and all the time, through multiple coordinating levels of support. The structure provided to support the strategy includes Idea and innovation labs, a business incubator, a Tech park, an Entrepreneurship Center, the Entrepreneurship Academy, among other committees and uses key external community members to connect the University projects to the regional entrepreneurship ecosystem. The process is based on building a road that the student has to travel, from academic courses where the methodologies favor teamwork and activity based learning, enhanced by a wealth of co-curricular opportunities to further develop and apply their business knowledge through competitions, industry events and conferences, and student organizations. For the students who want to develop and launch their start-ups there is a variety of campus resources, from facilities to mentors to funding connections. Illinois Tech is also committed to identifying the business needs in the community and pairing students with industry contacts to address these needs, particularly through partnerships with the Interprofessional Projects (IPRO) program, faculty outreach, career centers and campus research centers.

Keywords: entrepreneurship education, strategy alignment, educational process, experiential learning

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Dependence of Innovation Strategies of Russian Companies on Technology Intensity: Structural and Dynamic Aspects

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Abstract: The paper aims at the analysis of innovation strategies (behavioural patterns) of Russian manufacturing industry firms depending on the degree of technology intensity. The manufacturing industries are traditionally divided into high-technology, medium-high-technology, medium-low-technology and lowtechnology groups according to the OECD classification. The decomposition of innovation process into components is proposed to discover prevailing strategies of firms. Such an approach made it possible to analyse the structure and dynamic changes of behavioural patterns and to identify the main innovation stages. In addition, the specification of basic processes allowed us to determine a strategic choice of certain groups of companies during the observed period. As a result, it is established that Russian high-tech enterprises are the most innovative and creative. The decrease in the degree of technology intensity leads to the considerable decrease in innovation activity. One exception is the group of low-technology companies. The strategy of new product introduction prevails in the group of high-technology firms, the integration of innovation creation and modifying strategies is prevalent in the medium-high technology group and the strategy of insignificant modifying is uppermost in the medium-low technology group. In the lowtechnology group, all the mentioned strategies are used.

Keywords: innovation, innovation strategy, basic process, innovation process, high-tech, low-tech, Russia

Ecosystem Approach to the Emergence of Regional Industrial Systems in Central and Eastern European Countries

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Abstract: This article reveals the main challenges that occur in the context of Central and Eastern European countries and presents a theoretical framework that reflects the ecosystem-based approach to the bottom-up emergence of industrial ecosystems. The framework that adapts the approach of complexity theory was created by analysing success stories of the (re)emergence and development of self-organising industrial systems. Based on the analysis of those stories, the integrated stages of emergence and development were defined. The framework presented in this article allows researchers and practitioners to identify the main obstacles that hinder the development of industrial ecosystems in any stage. In addition, this framework facilitates the formulation of strategies behind the successful regional industrial systems, including the context of Central and Eastern European countries.

Keywords: ecosystem-based approach, development of industrial systems, CEE countries

Modelling Innovation Activity in Regional Innovation Networks Using Fuzzy Cognitive Maps

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Abstract: Intensive communication and collaboration between actors are critical for a successful innovation process. This knowledge exchange can be effectively facilitated by geographical proximity inside regional innovation networks. Previous literature has shown that regional innovation networks are complex and dynamic systems, which cannot be effectively modeled using traditional methods such as structural equation models or system dynamics simulation. The main issue to be addressed is the uncertainty in knowledge linkages. Here, we use the amount of financial support for cooperative projects in applied research and experimental development as listed by the Technology Agency of the Czech Republic (TACR) as a proxy for these linkages. To model the dynamics and uncertainty in regional innovation networks, we have developed a fuzzy cognitive map that al-

lows for effective simulation of knowledge linkages when given the initial settings. In this way, we demonstrate the short- and long-term effects of financial support on the innovative activity of individual organizations (measured by patent applications). Using the data for one Czech region collected from the TACR database for 2011–2015, we demonstrate the evolving patterns of various scenarios of innovation policy and financial support, respectively. These simulations indicate the strong central position of universities in regional innovation networks.

Keywords: regional innovation network, R&D cooperation, financial support, simulation, fuzzy cognitive map

Entrepreneurship Education in Studio Based Learning Practices

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Abstract: The need for entrepreneurial mindset, skills and creativity in the future work-life will require the renewal of pedagogical methods used. The studio based learning is one of the promising pedagogical methods enabling this change. The LAB studio model, pre-incubator style studio education in Oulu University of Applied Sciences in Finland, develops connections between work-life based problems and the recognition and development of the related business prototypes and start-up companies. Projects, based on the given problems are medium for educating self-aware future professionals, who will gain skills and attitude to work in interdisciplinary teams with entrepreneurial mindset. This article is a study by a literature review of the recent higher education practices utilising studio model as pedagogical method in variety of disciplines. The study will identify the common elements of entrepreneurship education and studio model practices described in the literature. The findings of the study indicate that entrepreneurship as a concept is not sufficiently addressed in the studio model literature; several similarities in the pedagogical principles between the LAB studio model and other studio models; and that LAB studio model has several unique practices compared to other studio model educations.

Keywords: studio based learning, studio model education, lab studio model, higher education, activity system model, entrepreneurship education

The Challenge to Entrepreneurship Educators (Non Obstante David Birch)

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Abstract: Just over a decade ago in the journal Academy of Management Learning and Education Magnus Aronsson (2004) published a paper entitled "Education Matters - But Does Entrepreneurship Education? An interview with David Birch". The reason for the interview was to open up a discussion on what might be required in the taught provision of entrepreneurship education. This was essential, it was argued, for entrepreneurship education to provide a more effective environment for encouraging entrepreneurship. In the paper Birch developed a critique of those involved in entrepreneurship education, particularly citing the role of institutions and the programmes they deliver and questioned their impact on producing high quality entrepreneurs. This debate raised age old issues about practice and theory, about praxis, and about the role of structure and agency particularly relating to the contradictions that arise to even define the discipline of 'entrepreneurship'. Less sophisticated although equally pertinent, is the question of whether entrepreneurship can be taught. The critique offered in the interview between Aronsson and Birch has left an impression on many entrepreneurship educators and it was this that became the starting point for the design of a programme developed by the authors of this paper. We decided to take on the challenge suggested to incorporate sales training, negotiation and other entrepreneurship relevant content into a curriculum for postgraduate entrepreneurship students at our institution. Our view was sympathetic to the critique offered by Birch so we sought to design a bespoke and creative entrepreneurship M-level degree that has sales and negotiation as the foundational module of the programme. Other equally innovative modules support this. The UK higher education system typically has a dissertation equating to a third of the degree. We replaced this with a three semester module on developing sales skills and teaching negotiation techniques which are practiced repeatedly. We believed we could legitimately question the functional purpose of a dissertation for people aiming to become entrepreneurs. However, in recognising the paradox often found between theory and practice, we felt that those critical, analytical skills that are part of the academic journey, particularly in the dissertation period, had an important role for nascent entrepreneurs. We recognised that if we could support students to produce an output, a paper, of 'publishable standard' we would take those students through a journey that would support their learning for entrepreneurship juxtaposed alongside practitioner-based pedagogy. This keeps at arms length, views articulated about student learning that tended to be conservative and opposed to such a change. We present in this paper a case study of what we have sought to develop, showing the barriers we overcame and how we incorporated live projects, utilising various learning technologies and by encouraging entrepreneurial behaviour in the learning activities of students. We hope this case provides inspiration for other entrepreneurship educators to support the development of their courses and programmes in delivering a closer match between what universities can provide and what is required in entrepreneurship education.

Keywords: entrepreneurship education, critical skills, experiential learning, negotiation, research publication, dissertation redundancy

Entrepreneurial Characteristics in STEM: A Higher Education Institution Perspective

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Abstract: The benefit of entrepreneurship and innovation within the STEM subjects is not in question, with national bodies and academic research, expanding within the topic (RAEng 2015). The existence of entrepreneurship education and support within Higher Education Institutions (HEIs) is also increasing, although not necessarily within all subject areas (Young 2015). With often limited resources to integrate entrepreneurship education and support into STEM, is there an entrepreneurial characteristic profile that can be targeted? Are these student profiles attracted to certain topics within the STEM arena? By answering these questions, the enterprise resources of HEIs can be better allocated (but not limited to) to those individuals with increased entrepreneurial potential. This paper presents empirical data conducted at Coventry University into the entrepreneurial profiles possessed by students within the Faculty of Engineering and Computing. The data was collected based upon the Gasse et al. (2006) Characteristic Inventory model. The data collected measures eleven characteristics such as internal locus of control, creativity, self-efficacy and risk taking propensity; all of which have significant levels of research surrounding the impact upon entrepreneurial action and intent. The results are compared across a range of samples groups that reflect disciplines within the STEM arena. This data is discussed in the context of specific STEM topics and the potential focusing of enterprise support resources being directed towards these individuals. By targeting these engineering students further, there is a potential economic impact to business and job creation. Comparison is also drawn between the use of the Engineering Councils UK-SPEC Chartered Engineer competencies, as many of the characteristics are mirrored within the entrepreneurial characteristics measured within this research. Improved focus upon the characteristic development in areas such as leadership and tolerance to ambiguity, can be implemented further within engineering curriculum.

Keywords: entrepreneurship, STEM, characteristics, traits

Relationships of Playfulness, Work Engagement and Innovative Performance

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Abstract: Playfulness and serious, credible business seem to be an unfitting match at first glance. However, astutely combined, they might promote competitiveness of firms. This study addresses a specific area in which humor and business can come together, as we examine the relationships between playfulness, work engagement and individual-level innovative performance. Earlier research on work engagement, playfulness and innovativeness has contributed to the creation of current research framework with hypothesized relationships between playfulness and work engagement as well as playfulness and innovative performance. Webbased survey data comprising the responses of 115 employees were collected from nine different organizations. The theoretical considerations and empirical evidence based on the collected data add to the existing knowledge on innovation management, entrepreneurship, human resource management, and organizational and humor theories. Our findings suggest that of the different forms of playfulness, playful attitude and atmosphere relates positively to work engagement which, in turn, shows positive relationship with innovative work performance. Nonetheless, a conclusion can be drawn that, like earlier research suggests, playfulness and humor need to be approached with certain caution when they are used as a strategic business tool: different forms of playfulness and humor can have different – even opposite – consequences for different innovative outcomes.

Keywords: innovation, work engagement, playfulness, humor, management, entrepreneurship

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Governing Ownership: A Case Study About the Board's Role in Family Business Ownership Decisions

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Abstract: Well-functioning governance enables entrepreneurial intentions and behaviour to channel into organizational outcomes like strategic renewal, the creation of new ventures and improved performance in companies. The board of directors is the most central governance body, and especially board roles and composition have been popular topics among governance researchers. Despite this, the research on boards of directors in a family business context is still just emerging. In this study we will open a new path for the board role discussion and examine how the board of directors participates in the ownership-related decision-making of family businesses. The research is implemented as a qualitative case study, using two Finnish family businesses as cases. The findings from the cases show that the board has several tasks regarding ownership. These tasks include, for example, decisions about dividends, the evaluation of and decisions about acquisitions, and compensation negotiations in succession. The case studies suggest that the board also participates actively in the management of the ownership structure. As a conclusion we present that although ownership creates the basis for the activities and the essence of the board, the board also contributes, to a large extent, to the ownership decisions and in this way to the management of ownership. The findings presented in this paper contribute to the theoretical discussion of family business governance by presenting a new, ownership-related role for the board of directors. In addition, the findings reveal some interesting but little-researched topics, like the use of the dual stock-class system in family business succession. Simultaneously, we contribute to the practice by providing concrete examples of how the board participates in ownership-related decisionmaking and highlighting the need to manage ownership in order to secure family businesses' continuity from generation to generation.

Keywords: family business, governance, board of directors, board roles, ownership

Triple Helix Relations in Innovation: Conflicts, Tensions, and Struggles in Rentier Regions

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Abstract: This study investigates academic entrepreneurship within a prism of the triple helix model of innovation relating university, industry, and government. The study adopts a sociological approach, defines academic entrepreneurship as a social game, and aims to unravel the mechanisms of relations within the triple helix that arise in oil-rich regions, using oil-rich Nigeria as case. In particular, it focuses on how socio-economic-political institutions of rentierism within these regions influence commercialization of findings of research. The study argues that the structural powers that shape academic entrepreneurship in different environments are governed by the interdependencies between agency and socioeconomic -political institutions. This is in line with the prevalent claim that institutions impose rules that constitute constraints and enablers of agency. This study however argues that agential actions are not mere rules-compliance, rather they are strategic calculations based on pragmatic contingent decisions about what works best within given institutional dynamics. The study employs Bourdieu's sociology as the conceptual framework, underpinned by critical realist philosophy. It uses data from multiple sources to transcend the agency-structure divide, and unearths the various conflicts, tensions, struggles and negotiations between the three players in the triple helix in oil-rich environments. Findings of the study offer new insights to academic researchers, industrialists, governments, and policy makers especially in knowledge-driven economies. It identifies and highlights the points of divergence of the key players in the fields of innovation and entrepreneurship. The findings are also of significance to innovation and regional development policy-makers as they offer insights into what works, what doesn't work and what may never work regarding policy; and illustrates that entrepreneurship and innovation policies that are effective in one clime may not necessarily be effective in another, thus highlighting the critical importance of institutional considerations in entrepreneurship and innovation policy-making.

Keywords: academic entrepreneurship, Bourdieu, Rentier states, agency-structure, social space, practice

How Mobile Technologies and Social Media Merge to Help Managers and Entrepreneurs Fast Track Their Business

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Abstract: The approach most of the organizations have taken recently is to integrate social media and mobile technologies into their activity to create awareness and persuading the customer into liking, following an organization's social media profile or interacting with other users or organization's representatives on its platform. The mix between social media tools and mobile technologies is the key to a successful business development. The authors noticed that only with social media very few users progress into buying a product or service, but rather remain of the first stage of social media reactions. The main objective of the paper is to determine the best way to mix social media and mobile technologies in order to fast track a business. A structured questionnaire was the main survey tool for this study. After the preliminary results were analyzed, there were conducted several interviews with the entrepreneurs that obtained a significant business growth mainly through social media merged with mobile technology. The exploratory research aims at answering the following questions: (i) if using mobile social media technologies is correlated with the performance of the company; and (ii) if there is a preference for social media mobile applications depending on the industry. One of the most important benefits of mobile social networking is the location awareness, leading to a great opportunity for marketers to target customers better. Also, offering various promotions through social media might be even more successful when merging targeted demographics with the location. Understanding that social media alone is not enough anymore for business growth, but that it rather becomes a successful approach when used together with mobile technologies, helps entrepreneurs develop their business. The model presented in this study can be adapted by several industries where the customer interacts directly with the provider.

Keywords: social networks, social media, Facebook, mobile technology, business performance

Developing Innovation Ecosystem of the University Through Implementation of Interfaculty Master's Program: The Case of LMSU

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Abstract: This article discusses the overall performance of the first interfaculty Master's program at Lomonosov Moscow State University (LMSU) called "Management of Biotechnology" (MB), and significance of its contribution to the development of the University's innovation ecosystem (IE). The program was implemented by the Faculty of Economics in conjunction with the Faculty of Biology. We deduced the following three hypotheses: Implementation of the MB Master's program promotes development of the University's IE since it attracts students to working in a knowledge-intensive industry, where biotechnology is used extensively; MB Master's program stimulates development of entrepreneurial skills among students which is essential for work in high technology industries related to biotechnology; MB Master's program facilitates implementation and, hence, contributes to further commercialization of high-tech biotechnology products which are created on the basis of the Faculty of Biology. Within our methodological framework we used a combination of research methods which encompass the analysis of: Embodied lived experience of the authors before empirical data were collected via self-inspection and reflection of own experience: Interviews: results of published scientific research and interviews conducted by the team during 2012-2016; Surveys: we assessed responses of students, stakeholders of IE of LMSU and potential employers which were conducted during 2014-2015. The results generally confirm all three hypotheses presented above. Moreover, we found out that students that are enrolled in the program demonstrate a good level of motivation and interest in the subject matter which stimulates an increasing support from employers and members of the IE of the university. At the same time, there are limitations, including slowly developing market for biotech innovations in Russia, which leads to limited employment opportunities for students, as well as difficulties associated with commercialization of biotechnological products in LMSU due to the generally theoretical nature of such products. Nevertheless, our MB program integrates these projects into the curriculum to allow students to gain practical experience in biotechnology field.

Keywords: interdepartmental Master's program, collaboration, interdisciplinary research, university infrastructure, university innovation ecosystem

A Research Framework for Adapting the Innovation Process to its Context

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Abstract: The early innovation stages, prior to actual development, are often perceived as fuzzy, ill defined and therefore difficult to manage. Every specific innovation context requires a specific approach, adapted to the specific requirements of that context. Existing generic process models hardly bring into account the specific situation a firm is facing with regard to innovation: the novelty of the innovation required, the specific drivers such as technology or market, nor the specific context of developing product-service systems or experiences rather than hardware products. The impact of these early innovation stages, however, is known to be important for the competitive position of the firm in the long term. Prior research points at the importance of the innovation stages and the importance of adapting the process to its context, in order to gain efficiency and effectiveness for the overall innovation activities. Based on qualitative research we propose a multi-dimensional research framework that permits an improved understanding of the innovation process. It provides a base for specific process research and development and it supports building customized prescriptive process approaches in the Front-end of Innovation (FEI). The framework integrates four basic principles of design and product development methodology in a novel way. Essential in this approach is the integration of innovation abstraction levels. As a result, the framework tackles existing confusion in the early innovation stages. It helps to understand how an approach could be created for any given innovation context. Also, the framework unravels the Front-end of Innovation in such a way that it opens opportunities for researching the early stage design processes in a more detailed way. Distinct operational levels and distinct process steps on every level open these ill-defined approaches. This conceptual paper gives insights in the framework and the opportunities it could deliver for understanding the innovation process, both from a practitioner's point of view and a research point of view.

Keywords: front-end of innovation, methodology, adaptive approach, research framework

Virtual Spaces Impacting Real Places: Entrepreneurial Innovations in Trinidad and Tobago's Tertiary Education Landscape

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Abstract: In this study an innovative entrepreneurial approach was used to teach a postgraduate educational leadership course by incorporating digital tools to develop 21st century skills (creativity, collaboration, communication and critical thinking). Additionally, utilizing a practice-based approach facilitated learners operationalizing acquired skills within their institutions in real time and in the real world, thereby wedding knowledge, skills acquisition and dissemination in a way that had immediate impact and added value to the learner and The University of the West Indies School of Education (UWISOE) in Trinidad and Tobago (T&T). Global factors impacting the business of education have made it imperative for tertiary education providers worldwide to seek innovative entrepreneurial pathways to increase the skills base of their populations and capitalize on the full potential of individuals. New digital technologies have brought this imperative within reach, but it is not sufficient. The innovators are entrepreneurs: their integration of new pathways in tertiary education foster institution building, albeit intrapreneurs: they build collective capacity and transform the institution from the inside. (Coyne et al. (2001) and Hekkert et al. (2011) technological innovation systems (TIS), seven-step system functions, was used as a theoretical framework to assess the challenges and extent of the value-added. A qualitative interpretive approach was used in the study. The participants comprised thirty learners (school teachers, school leaders and educational organization leaders) enrolled in the course, the four lecturers who integrated 21st century skills in the course, and a fifth lecturer who acted as a participant observer of the course. Data collection methods included: participant observation, field notes, realtime videography of participants, interviews, blog posts, online and face-to-face focus groups and an online survey. A content analysis approach to data analysis was adopted, with the aid of the NVIVO 10 data analysis software. Research Questions: How has the entrepreneurial, innovative approach to teaching an educational leadership course utilizing digital tools aided the development of participants' 21st century skills and capitalized on the potential of the individual's learning? How has the entrepreneurial, innovative approach to teaching an educational leadership course utilizing digital tools added value to the UWISOE? How have participants in the course translated the gains from the course experience into their real world activity? Preliminary findings indicate that learners are navigating new spaces and ways of functioning within a blended learning environment. They are willing to do so because they feel the acquired 21st century skills are adding value to them personally and the practice-based approach allows them to use these skills to begin institutional transformation. These findings are important because they show that acquisition of 21st century skills provides learners with confidence to develop their institutions utilizing these skills, thereby adding value to the T&T educational system from the bottom up. From the UWISOE's perspective the benefits were: 1) economic, as open-source digital tools were used and there is the potential for increased student intake, 2) administrative, as digital instruction and assessment frees up administrative resources.

Keywords: entrepreneurship, innovation, Trinidad and Tobago, digital tools, tertiary education, 21st century skills, collective capacity building

Interactions Among Open Innovation Activities, Organizational Learning and Competence in Business and Public Organizations: Issues of Measuring

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Abstract: The changing nature of innovation modes requires a different focus in innovation process organization and monitoring in order to ensure innovation management effectiveness, speed, and maintain strategic focus. At this level it is important to understand the link between open innovation processes and innovation micro foundations in the organization (supporting learning and knowledge exchanges for open innovation) and organizing and monitoring practices. In this context the important question how to measure the above-mentioned activities of open innovations and their interaction with particularly relevant components of open innovations - organizational learning and the acceptable set of competences required - remains. Therefore, this paper addresses the following questions: how open innovation activities at organizations in different sectors interact with the dominant learning processes and sets of competencies? How to measure activities of open innovation, learning and competencies while searching for interactions among them? Interactions have to allow measuring the abovementioned variables in different type organizations irrespective of whether they are of business, or public sector? These questions are addressed drawing on the research carried out in the frame of the project AISTIS. The project AISTIS aims to develop a complex methodology for the evaluation of national innovation system with reference to its evolution towards open innovation ecosystem. The research is based on a new methodology for the measurement and evaluation methodology on the level of innovation systems, sectors and organizations.

Keywords: open innovation, organizational learning, competence, public and business sector

On Using Games for Practicing Entrepreneurial Mindset

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Abstract: Today, innovation and entrepreneurship are key words for many universities, as it constitutes an important part of most universities' public and scientific outreach task. Universities are striving to increase the number of innovations and entrepreneurs generated by the university. Teaching and learning entrepreneurship is therefore of importance and schools, colleges and universities can play an important role by including entrepreneurship and innovation in their curricula (Sidhu et al., 2015a). Some of the most crucial elements of entrepreneurship at the level of individuals are attitudes, skills and actions (Wennekers, 2005), i.e. the entrepreneurial mindset of the individual. This is an element that is seldom included in traditional classes at schools, colleges and universities. Creating entrepreneurial mindsets in students also calls for the use of innovative models and contents in teaching. As part of the Berkeley Method of Entrepreneurship (BMoE) research project, the entrepreneurial mindset has been studied and ten behaviors have been identified (Sidhu et al., 2015b). These are behaviors that are frequently found with successful entrepreneurs in the highly innovative and entrepreneurial area of Silicon Valley, California. Another part of the same research project has been to identify and design various games that can be used with the entrepreneurship students and that has the intension to advance the individual's entrepreneurial mindset (Sidhu et al., 2015a). This paper describes two BMoE-games (Story-telling and Collaboration) and discusses experiences of using them for teaching and learning entrepreneurship in higher education. Reflections from both teachers and students are provided.

Keywords: entrepreneurship, innovation, teaching and learning

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Multidimensional Learning Environments for Entrepreneurship Education

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Abstract: The study of effective learning environments for entrepreneurial learning is an open subject in entrepreneurial studies. In the present article we adopt the theory of Knud Illeris for learning which introduces a 3-dimensional framework, i.e. the content, the incentives and the environment, to analyse the conditions under which entrepreneurial learning occurs. In accordance with Illeris' theory, it is crucial that all of the three aforementioned dimensions be active for creating favourable conditions for learning. For most formal entrepreneurial courses that lean upon cognitive learning processes, the functionality dimension that pertains to the content dominates the rest two dimensions. Drawing upon an entrepreneurial course taught during an Autumn Academy for international students in a German university and an online group of informal learners through TeleCC.org in Greece, we address the learning environments by means of the Illeris' theory. A questionnaire was administered to the participants of the courses in order to examine how they experienced Illeris' three dimensional framework. The results are discussed in order to reveal the perceived contribution of each dimension in the learning environment. For the specific courses, the three dimensions of Illeris' theory were found to contribute equally the learning process. Hence, the illustrated cases can be considered as examples of integrated learning environments, either face to face or online, for entrepreneurship education.

Keywords: entrepreneurship education, entrepreneurial pedagogy, learning environment, online teaching, Illeris' theory

Systemic Energy Innovation Networks Funded by the European Union

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Abstract: Innovation in the energy area is increasingly being built upon a systemic approach that connects innovation lifecycle from technology exploration to mar-

ket exploitation. Systemic energy innovation has been supported by the European Union (EU) through funding for international networks that integrate resources across diverse geographic and thematic areas. This study analyzes the structural conditions of EU-funded networks over 11 years to determine whether EU's policy instruments have contributed to developing an ecosystem for systemic energy innovation. The analysis shows that networks under the EU's programs had weak core and periphery clusters, each of which should have stimulated market exploitation and technology exploration, respectively. Moreover, these core and periphery clusters were not structurally interconnected to generate a synergistic effect for systemic innovation. In general, the existing positions of organizations and their collaboration strategies show an ineffective combination to support systemic innovation. This research suggests policies to achieve complementarities between technology and market innovations.

Keywords: energy innovation, systemic innovation, exploitation, social network analysis, European Union

Design Thinking in Teaching: Product Concept Creation in the Devlab Program

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Abstract: This paper summarizes a case study within which the concept of design thinking (Brown 2009) has been used to construct a practical user-centered process to support rapid product concept creation in an entrepreneurship education program. This process has been established within the DevLAB program at the Oulu University of Applied Sciences in Finland which acts as a permanent preincubator program for university level students and professionals accessing retraining. Design thinking was chosen as the basis of the program to support interdisciplinary teams that need to work together effectively. Design thinking is useful in this scenario since it is a suitable methodology for projects in any field. It is especially well suited to ill-defined problems. This paper will summarize the context, curriculum and preliminary outcomes associated with this design thinking process. It will also outline how design thinking has become an integral aspect of the development phases that interdisciplinary teams of students go through to build prototypes and create start-ups as part of their studies. While this program is still relatively new, preliminary feedback from participants suggests that the design thinking is an effective model for supporting the development of project work within entrepreneurship education at the higher education level. Ultimately, this case aims to educate people who can apply the tools of design thinking into their careers.

Keywords: design thinking, project based learning, LAB studio model, concept creation

Managing Super Diverse Women Entrepreneurs in Aotearoa New Zealand

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Abstract: New Zealand, like other countries, is becoming an increasingly multicultural society. Diversity of New Zealand has rapidly increased in the last ten years with 34 percent of the current population being Maori, Asian and Pacific community. We can see the reflection of super diversity in many areas of productivity, investment and particularly in innovation and entrepreneurial areas. Diversity has resulted in varied personal strengths such as language skills, social, cultural and international connections that can be channelled into entrepreneurship and easily transferable to New Zealand economy. New Zealand needs to adjust fast and invest in measures and programs to ensure we maximise the benefits of super diverse women population. These calls for a multi-voiced "diversity" discourse that would focus attention on the local demographics, cultural and political differences that adds value for entrepreneurial activities. As a country, New Zealand has acknowledged the influence of women on its growth and prosperity. Women entrepreneurs play a crucial role in country's economy, in terms of generating revenue and jobs, and creating an inclusive society; yet the entrepreneurial research to address diversity and promote entrepreneurial activities is largely invisible or marginal in mainstream entrepreneurship research. Despite a number of barriers, migrant women entrepreneurs are the fastest-growing group of business owners in advanced economies. In this paper, we aim to address the diversity of the women entrepreneurs and an attempt to provide a better understanding of the phenomenon by identifying and providing an overview of the possible barriers faced by diverse women entrepreneurs. It also explores challenges facing women entrepreneurs and various ethnic and cultural resources utilised by them to overcome such challenges. This paper will offer insights towards building a more inclusive framework for women's entrepreneurship at a grass root level. Practical implication for future research and practice will be outlined.

Keywords: women entrepreneurship, diversity, New Zealand, Maori, ethnic community

The Double J-Curve: A Model for Incubated Start-ups

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Abstract: It is widely believed incubators are not as effective as they could be. Although incubators are intended to be a tool for supporting entrepreneurship, innovation, and regional development, there is little empirical evidence that incubators have fulfilled their expected role. Entrepreneurs applying to join an incubator expect to successfully graduate within a reasonable amount of time, and publicly funded incubators are expected to enhance the creation of new start-ups that create jobs and grow the economy. Therefore, the primary goal of a business incubator is supporting entrepreneurs to create successful start-ups within a reasonable time. Ultimately, a graduated start-up leaves the incubator after becoming a sustainable firm that can stand alone and maintain its growth outside this nurturing environment. The J-curve model illustrates the journey of any start-up during its opportunity development process until maturity. The successful graduation rate is an indicator of an incubator's performance, particularly its indirect contribution to the economy. This study explores entrepreneurs' perspectives on the factors leading to higher successful graduation rates from business incubators. Incubators offer three categories of services: infrastructure, coaching, and networking. This study analyzes qualitative data from interviews with entrepreneurs expecting to join a business incubator, currently affiliated with a business incubator, and already graduated from a business incubator. Based on the J-curve model and the services offered by incubators, a new model emerged: the double J-curve. The J-curve does not reflect the challenges incubated start-ups face directly after graduation when they are exposed to new expenses that were covered by their incubators. Incubated start-ups pass through a five-phased double Jcurve rather than three-phased J-curve. Each phase is defined by a start-up's milestones, its challenges, its needs, and its incubator's services. These findings can have implications on incubators' policies for accepting and evaluating startups.

Keywords: incubators, successful graduation, Services at incubators, incubator performance, business creation and innovation, J-curve

Strategic Structure and Implementation of Regional Triple Helix Collaboration: Comparative Case Study

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Abstract: This study focuses on triple helix collaboration to support regional innovation-led development and economy. As global economic competition is getting more rigorous, regions are seeking new ways to boost innovativeness and the economic success of local enterprises. A potential way is the strategic approach of triple helix collaboration. However, regions have diverse, challenging options to structure and implement triple helix collaboration (Asheim & Coenen, 2006). Empirical knowledge currently is inadequate for stakeholders interested and involved in regional strategy processes and strategy implementation. Our research question is condensed into: What role can strategic structures and implementation of triple helix collaboration play in regional development? The strategic structure in this study is understood as a distinct organisational setting, with a shared strategic agenda to which the key triple helix parties are committed in the long-term. In this descriptive case study, we focus on the strategic structures and implementation of triple helix collaboration as a contemporary phenomenon in real-life context (Yin 2003). We selected two regional cases for analysis and comparison based on the following criteria: the regions are located outside metropolitan areas around medium-sized cities, and characterized at the highest level of innovation spirit in Europe (Giffinger et al. 2014); the researchers were able to gain in-depth understanding about the cases (Yin 2003); together with predominant strategic structures featuring long-term commitment by key triple helix parties in the regions. The research data was collected from multiple sources and included documents, meetings, and observation. The strategic structure of Case Brainport (Netherlands) was a foundation supervised by sixteen main triple helix parties. The implementation of shared strategy was organised by a dedicated joint development company. The structure in Case Brainport takes a holistic approach and high profile role in regional development. The strategic structure of Oulu Innovation Alliance ('OIA', Finland) is a strategic alliance agreement among five main triple helix parties. The implementation of strategic objectives was organised through five innovation centres. The structure in OIA strengthens the role of knowledge institutes in regional development in five spearhead areas. The cases illustrate two empirical ways to utilise triple helix mandate and strategic structures in regional development and strategy processes. The different societal contexts, visionary leaders, and legacies of past collaboration have clearly directed

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two regions to quite different outcomes. The comparison of these cases indicates the diverse options and scopes for structuring and organising regional triple helix collaboration globally.

Keywords: regional development, regional innovation, triple helix, collaboration, innovation, empirical case studies

The Changing Role of Universities in Economic Growth

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Abstract: Social and economic evolution is described by numerous wave and cyclic concepts. Nevertheless, at certain historical periods, societies make great breakthroughs known as technological revolutions. Now we are on the threshold of the fourth industrial revolution characterized by a rapid development of such industries, as robotics, artificial intelligence, neuroscience, brain engineering, and 3D printing. Social and economic development always went in parallel with science. However, the role of science in economic processes has been changing throughout time. The focus of the present research is the university as a key actor of economic change. Historically, it is possible to allocate four types of universities by analogy with four industrial revolutions. Under the conditions of the fourth industrial revolution there is a radical shift in the university model. From R&D and technology transfer universities move to creation of intellectual capital. Universities do not simply conduct R&D for business, but also create essentially new industries. Universities become a centre round which new hi-tech enterprises grow. This phenomenon has been entitled an entrepreneurial university, which is considered to be the main actor of entrepreneurial (startup) economy. The research main objective is identification of key factors in the entrepreneurial university success. The authors analysed the Global University Venturing ranking leading universities. The research is not limited to the quantitative data; qualitative indicators are also of great importance. Various techniques to estimate the university entrepreneurial capacity (Reuters, EULP-Entrepreneurial Universities Leaders Program) have been considered, and their comparative analysis has been conducted. The final model is based both on quantitative or qualitative indicators; the model can be used not only for estimation of entrepreneurial capability, but for the development of university strategy as well.

Keywords: knowledge economy, technology transfer, the fourth industrial revolution, R&D, entrepreneurial university, startup economy

Best Practices for Internal Startups: Experiences From Practitioners in Finland

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Abstract: Internal startup is a startup within a corporation where a company launches a separate independent initiative to pursue a new innovation or idea. Internal startup can result as a launch of new product, spin-off or failure. During Need for Speed program partly funded by TEKES it was studied which best practices are in use in four Finnish corporations for internal startups. Case study was chosen as a methodology as we aim to provide new information about best practices that are used in the Finnish corporations. As a result, nine best practices were documented. The best practices were related to the role and responsibilities within a corporation and the lifecycle of the internal startup. The proposed roles are: Corporate Business Angel, Internal Startup Advisor and Corporate Entrepreneur. Our preliminary assumption is that if the internal startups are new for the company it is important that there is Corporate Business Angel but when the internal startups become business as usual, it is sufficient that there are Corporate Entrepreneurs who are able to work independently. The best practices related to internal startup lifecycle are: Avoid bureaucracy, Exiting practices, Learn from mistakes, Lifecycle for an internal startup, Top Management Involvement and Shadowing. We compare the best practices with the existing new product development best practice framework. Compared to the existing new product development best practice framework, practitioners emphasize avoiding bureaucracy and propose new roles. Our study provides new information in the area of internal startups and intrapreneurship. We believe that corporations may benefit for deploying these best practices. However, more research is needed. This list of best practices needs further verification as there was limited number of corporations and interviewees involved. Most importantly, it should be studied which best practices impact the success of internal startups. If we are able to find which best practices enable the success of internal startups, we are able to support corporations seeking for competitive advantage and growth.

Keywords: innovation, new product development, intrapreneurship, best practice

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HYRRÄT: Promoting Entrepreneurship in Welfare Services

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Abstract: Objectives: Helsinki Metropolia University of Applied Sciences conducted 2/2013 - 3/2015 HYRRÄT- Promoting Entrepreneurship in Welfare Services ESR project. The project involved the whole of Social Services and Health Care, 18 training program. The need for welfare services is growing rapidly as a result of an aging population and service expectations diversification. Alongside the public services needed to an increasing extent, private and third-sector services. It has increased the need in Welfare Services education for reinforcing positive attitude to entrepreneurship and developing business skills. Changes in the operating environment in the welfare sector entrepreneurs need support in the early days of the company until the change of ownership. The project aimed at raising and encouragement of entrepreneurship in the welfare sector students' entrepreneurial skills; promotion of teachers' entrepreneurship education excellence and the development of entrepreneurship education teaching methods and materials; The development of the welfare sector of the business environment: Production of support material in different stages of the life of the company and an explanation of the significance of gender welfare entrepreneurship and entrepreneurship education. Approach; Action finished in the Uusimaa region and events held in Helsinki. Held in the operational phase of the project entrepreneurs intending, entrepreneurs and companies, as well as giving up prosperity in the field of students and teachers encounters and ushered in a common goal-oriented work. An example of this are implemented for students HYRRÄT 10, an intensive corporate farming day, entrepreneurship pedagogical development of teachers, entrepreneurship fairs, Foresight workshops, Networking workshops, service design and business transfer workshops. Results: As a result of this development was born Routes for the entrepreneurship of Welfare Services - Web pages, which includes the outputs created during the project activities, such as advanced materials, business models and tool boxes activities and a report on the significance of gender welfare entrepreneurship. Web pages material is classified under the following headings: entrepreneurship in the welfare sector, entrepreneurial skills, launching the company, stacks up in the market, high-quality services, business transfer and entrepreneurship education. Implications: The project has triggered the development of entrepreneurship education in Helsinki Metropolia University of Applied Sciences. The results of the project are all freely accessible online from http://hyrrat.metropolia.fi. Pages will be updated by the wellness areas of entrepreneurship teachers and students. *Value/Originality:* The results are intended for entrepreneurs Welfare Sectors professionals, students, teachers, organizations, and business advisory organizations intending to use.

Keywords: entrepreneurship, entrepreneurship education, well-being

Agile Business Strategies: How to Adjust to Rapidly Changing Environments?

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Abstract: Annual reports with respective KPIs do reflect the current status of a company and provide a glimpse into the future development of an enterprise. But these are results of a longterm plan, a vision, which is transformed into a business strategy by the management many years before this point of time. These strategic outlines are often branch-specific. But characteristics and corresponding risks of branches and their environment, the competitors, the suppliers and especially customer demands can change over time. In order to face the challenges of such a volatile, uncertain, complex and ambiguous (VUCA) world specifically traditional industries could increase their efficiency and their long-term performance by adapting methods of highly agile as well as adaptive network and IT-related enterprises such as Google, Facebook, Amazon or Alibaba. Based on a qualitative analysis consisting of case studies extracted from the automotive industry this research will analyze the efficiency of applying agile methods instead of strictly plan-based strategies considering the special characteristics of this branch. Furthermore this paper will focus on adaptions of already implemented agile principles within volatile environments in order to customize them for the special setting and surrounding of traditional branches. In conclusion the research indicates that only a minority of agile principles that have been applied on strategy development are efficient to improve business strategy performance within the automotive branch. The efficiency varies based on the respective environment considering customer demands, supplier structure, competitors, retailer, external regulations and branch developments. A pure copy of agile methods and principles on business strategies without a selection or adaption based on the business environment will not be beneficial with respect to the company performance.

Keywords: agile manifesto, business strategy, business performance, flexibility, efficiency, automotive industry

Analyzing Educators' Perspectives on the Effects of Entrepreneurship Education on Students' Entrepreneurial Intentions

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Abstract: Understanding the effects of entrepreneurship education on students' entrepreneurial intentions is essential to improve effectiveness and complementarity of entrepreneurship education programs. Accordingly, a multitude of researches has attempted to capture such effects by surveying students under various sampling frames. And while great insights have been harnessed from such efforts, these remained limited by their short term perspective, and by a multitude of conflicting evidence. This paper attempts to find out the reason for previous inconclusive results within the field by examining the effects of entrepreneurship education on students' entrepreneurial intentions from the educators' perspective. Doing so, the authors engage in theory development through comparative qualitative cross-case analysis of educators from Norway and Russia. The analysis results in a detailed theoretical model. The model was refined by exploring the perspective of educators rather than students, doing so qualitatively rather than quantitatively; both allowing a broader and longer term perspective, anchored in experience and theory. Moreover, the different historical preconditions of entrepreneurship in both Norway and Russia have affected people's entrepreneurial intentions and the outcomes of the entrepreneurship education programs aiming to increase these intentions. Hence, a comparative approach allowed authors to identify factors that depend on cultural and socio-economic conditions of the two countries, and moderate entrepreneurship education - entrepreneurial intentions relations. Finally, the authors discuss practical implications, limitations and directions for future research. Overall, the model, research design and context taken together represent the contribution of the study.

Keywords: entrepreneurship, entrepreneurship education, entrepreneurial intentions, educators, Norway, Russia

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Tacit Knowledge Sharing and Creativity: How to Derive Innovation From Project Teams?

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Abstract: The way tacit knowledge is viewed these days places strong emphasis on its significance within the organisation. As opposed to explicit, tacit knowledge is absolutely novel and, because of it, beneficial for organisations. This form of knowledge is specific: it is produced and stored in people's minds and being an intangible asset it is closely related to social capital. Intangible assets become increasingly likely to decide about a competitive advantage of companies. Other key factors which fall into this group and affect competitive advantage in the network economy are innovation, relationships, cooperation, and knowledge. The network is used these days to coordinate market processes, hence the networked economy, a concept discussed in the idea of prosumerism, is based on mutual relationships and processes which take place between individuals in a horizontal rather than hierarchical configuration of dependencies. The arrangement of relationships in a company switches from "one to many" to "many to many" (networking), thus involving business partners and customers, who constitute an external network, as well as all employees (internal network) in the process of building the company's network of values. There are other factors which significantly contribute to creating a network of values by innovation, such as knowledge and relationships. In order to identify worthwhile innovations, members of a purposefully designed value network must work together. Project teams designed according to the methodology of project management (e.g. PRINCE, PMI, SCRUM) constitute short-term organisations which reflect the temporary nature of networking of knowledge workers. Modern companies are increasingly likely to work in a project management environment, which ensures their success in the implementation of innovation. The aim of the study is to prove that tacit knowledge is a mediator for creativity and project performance. Creativity as one of the crucial sources of innovation is stimulated by tacit knowledge. Bearing this fact in mind, the authors studied relations between tacit knowledge, creativity and the outcome of a project. For this purpose, they conducted a study of 514 Polish professionals with different functions and experience in managing projects in construction industry. The results indicate that the direct effect of tacit knowledge on project performance is rather minor but indirect effects mediated by creativity affect the final project performance. That situation also emphasises the specific nature of tacit knowledge. It is not easily noticeable and hard to measure, however its indirect influence proves its crucial role in value creation. The data collected during the study has been analysed using the equal structural modelling method. The results point out to a new context of tacit knowledge sharing as a key factor in the process of creating innovation. Nowadays tacit knowledge sharing is crucial for creation of innovation in project teams. The presented model highlights the essence of these relations.

Keywords: tacit knowledge, creativity, project performance, knowledge management, project management

Tacit Knowledge Sharing and Personal Branding: How to Derive Innovation From Project Teams?

Wioleta Kucharska and Jakub Dąbrowski

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Abstract: The way tacit knowledge is viewed these days places strong emphasis on its significance within the organisation. As opposed to explicit, tacit knowledge is absolutely novel and, because of it, beneficial for organisations. This form of knowledge is specific: it is produced and stored in people's minds and being an intangible asset it is closely related to social capital. Intangible assets become increasingly likely to decide about a competitive advantage of companies. Other key factors which fall into this group and affect competitive advantage in the network economy are innovation, relationships, cooperation, and knowledge. The network is used these days to coordinate market processes, hence the networked economy, a concept discussed in the idea of prosumerism, is based on mutual relationships and processes which take place between individuals in a horizontal rather than hierarchical configuration of dependencies. The arrangement of relationships in a company switches from "one to many" to "many to many" (networking), thus involving business partners and customers, who constitute an external network, as well as all employees (internal network) in the process of building the company's network of values. There are other factors which significantly contribute to creating a network of values by innovation, such as knowledge and relationships. In order to identify worthwhile innovations, members of a purposefully designed value network must work together. Project teams designed according to the methodology of project management (e.g. PRINCE, PMI, SCRUM) constitute short-term organisations which reflect the temporary nature of networking of knowledge workers. Modern companies are increasingly likely to work in a project management environment, which ensures their success in the implementation of innovation. The aim of the study is to prove that tacit knowledge is a mediator for creativity and project performance. Creativity as one of the crucial sources of innovation is stimulated by tacit knowledge. Bearing this fact in mind, the authors studied relations between tacit knowledge, creativity and the outcome of a project. For this purpose, they conducted a study of 514 Polish professionals with different functions and experience in managing projects in construction industry. The results indicate that the direct effect of tacit knowledge on project performance is rather minor but indirect effects mediated by creativity affect the final project performance. That situation also emphasises the specific nature of tacit knowledge. It is not easily noticeable and hard to measure, however its indirect influence proves its crucial role in value creation. The data collected during the study has been analysed using the equal structural modelling method. The results point out to a new context of tacit knowledge sharing as a key factor in the process of creating innovation. Nowadays tacit knowledge sharing is crucial for creation of innovation in project teams. The presented model highlights the essence of these relations.

Keywords: tacit knowledge, creativity, project performance, knowledge management, project management

Describing the Emergence of Interaction Mechanisms Within an Innovation Ecosystem

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Abstract: This study focuses on the interdependencies and interaction mechanisms within a regional innovation ecosystem. We suggest that the formation of an innovation ecosystem is largely based on the development of joint interaction forums for different stakeholders. These stakeholders can be identified as those individuals and key organisations interested in participating the ecosystem and its processes. This study sheds light on the institutional and social interaction mechanisms that enhance creation of university-based spin-offs and start-ups. In terms of institutional interaction, prior research shows that universities that have successfully commercialised their research results have clear strategies for development of university-based spin-offs. Moreover, successful universities possess greater expertise and utilise surrogate entrepreneurs and external networks for accessing complementary competencies. Social interaction, on the other hand, enables informal networking between the researchers, industrial corporations, start-ups, investors and civic officials. These down-top interaction mechanisms create new openings for business ideas and innovations. Literature on academic entrepreneurship calls for the holistic perspective on the knowledge transfer between higher education institutions and industry. This study presents the findings from 22 in-depth interviews of key stakeholders of a regional innovation ecosystem. The interviewees include university staff, representatives of university-based spin-offs and start-ups, industrial corporations, university's investment company, governmental and regional organisations. The findings suggest that the stakeholders have different perspectives on the formal institutional interaction mechanisms and their usefulness in the development of the ecosystem. However, the social forums seem to provide fruitful platforms for idea generation and knowledge dissemination. This study shows that even if the individual elements of the ecosystem are in place, the ecosystem cannot function effectively if some joints are missing between the elements. The study contributes to the existing literature on the formation of university-based innovation ecosystems. It reveals the interdependencies and interaction mechanisms between the stakeholders. As the micro- and macro-level processes are interconnected, it is important to understand individual-level factors and relational processes in addition to organisational antecedents and formal processes.

Keywords: innovation ecosystem, technology and knowledge transfer, university spin-offs, social networks

How do Students Learn to Become Entrepreneurial in University?

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Abstract: The growth and development in the curricula and educational programmes devoted to entrepreneurship in higher education have been remarkable over the last 20 years. Entrepreneurial learning has been identified as exploratory, embedded into social contexts, creative and experiential (see, for example, Fletcher 2007; Higgins et al 2013; Löbler 2006; Rae 2000). Thereby, constructivism, as a philosophical paradigm, seems to provide a good explanation to understand the learning process of entrepreneurs in which they construct meanings through their experiences with the world. This paper explores the learning processes of entrepreneurship students from a constructivist perspective and seeks to understand how students learn to become entrepreneurial within a higher education context. The research that underpins this study is based on studying a small group of full-time Marketing Masters students who undertook an entrepreneurship module in the Business School of a UK based University. It explores how these students develop entrepreneurial learning and construct knowledge progressively over a three-month period as they engage with their studies within an entrepreneurship curriculum. The results show that the learning process of university students is perceived as profoundly experiential and based on all kinds of interactions inside as well as outside their classroom. The development of entrepreneurial graduates is underpinned by an experiential approach to learning, which is preferably action-based and student-centred, focusing on the development of entrepreneurial skills and competencies associated with entrepreneurship. The overall conclusion is that constructivism provides a good explanation of the learning processes within an entrepreneurship education curriculum. The constructivist perspective of learning regards knowledge as a form of mental representation and a construction of the human mind, and therefore offers a powerful framework for understanding how individual students organise what they experience, how they process what they experience, and consequently what they learn.

Keywords: entrepreneurship education, entrepreneurial learning, entrepreneurship pedagogy, entrepreneurial graduates, constructivist perspective of entrepreneurial learning, innovation education

The Marketplace of Ideas: Exploring Open Innovation in Traditional Food Producing SMEs

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Abstract: This paper explores the practice of open innovation in traditional food producing (TFP) SMEs, with a specific focus on meat, bakery and dairy products. The TFP sector is often characterised as highly fragmented, comprising of micro, small and medium sized businesses operating from a very low technology base. SMEs involved in 'artisanal', typically locally sourced and marketed products frequently shun technology feeling that its adoption would dilute the authenticity, tradition and quality of their products. Producers differentiate their offer based on the 'story' of their production and not its cost. This enables them to occupy a niche market space; differentiating themselves from larger competitors who retail commoditised products with little reference to the people and places involved in the production process. Introducing new technology or innovation into the traditional food sector therefore has a number of challenges. Nevertheless, traditional food producers, like many small businesses, face increased competitive pressure, prompting them to look for ways to add value or strip out costs through the adoption of new technology, processes and practices. With the demand for traditional

foods continuing to grow, TFP SME are being encouraged to use their flexibility and agility to orient their strategies towards the marketplace, perhaps by focusing less on the product in order to take full advantage of the opportunities that arise. The call, in essence, is for the traditional food producing SME to be more entrepreneurial and innovative in all aspects of their business model design. The empirical element of this paper is drawn from work undertaken as part of a European (FP7 project) called TRADEIT. As part of the project an electronic marketplace was developed to acts as the broker of technology, knowledge and innovation. The marketplace was specifically designed as an online agri-food community which aimed to facilitate technology and knowledge transfer and to support the development of innovation partnership between technology providers and traditional food producers. Drawing on data from nine European hubs and over 1000 registered users of the marketplace, this paper explores how traditional food producers interact with technology providers. The research findings so far suggest that the role of an intermediary is key to bringing technology providers and technology adopters together.

Keywords: open innovation, technology transfer, traditional food producers, SMEs, artisansneurial learning, innovation education

International Sign: A Practical kit

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Abstract: Sign languages exist throughout the world's societies with varying degrees of acceptance and recognition. To be more specific, the recognition of sign languages as official languages is one of the major concerns of many Deaf communities all over the world. Luckily, in many countries the fight reached the goal and sign languages got some degree of recognition, promotion and support at different levels of the social and civil life. There is no a standard pathway in which such a recognition can be legally included within national legal frameworks. While in some countries the national sign language is an official state language, in others is a minority language, and somewhere else has a protected status in certain areas, such as education or access to public services. In fact, a wide variety of issues related to deaf people demands attention. While Deaf community organizations

in Western countries advocate for bilingual education for deaf children, in many other areas of the world, deaf people do not have access to any school whatsoever. The World Federation of the Deaf (WFD) estimates over 80% of deaf children do not have access to education (World Federation of the Deaf, n.d.). These negative facts led our research team to design a multilingual e-book, open to everyone; Deaf and hearing persons, from any country: the "International Sign: A Practical Kit". In this article, we describe the structure of the first digital practical kit of International Sign (IS), as an informal instrument of teaching IS, whose objective is to demolish the misconceptions about Deaf and Deaf culture and to outline the four "basic factors for human rights of deaf people." These are: a) "Recognition and use of sign language(s), including recognition of and respect for Deaf culture and identity b) Bilingual education in sign language(s) and the national language(s) c) Accessibility to all areas of society and life, including legislation to secure equal citizenship for all and prevent discrimination d) Sign Language interpretation." (Haualand and Allen, 2009:9). To conclude, our final objective is, through the diffusion and the spread of the International Sign: A Practical Kit, to abolish linguistic barriers through the Deaf communities and create new job opportunities for this specific target group, using this e-book as a pilot for the creation of a social enterprise of digital editions concerning Deaf Culture directed by Deaf.

Keywords: practical kit, international sign (IS), social entrepreneurship, deaf, e-book

Social Entrepreneurship and Disruptive Innovation: Evaluating the use of Rumie's Free Educational Software in Seven Developing Economies

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Abstract: This paper reviews the provision of free educational hardware and software provided by one social enterprise to under resourced children in seven countries. The social and economic challenges faced by this social enterprise are highlighted; the implications for social enterprise of adopting disruptive innova-

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tion and of blended learning techniques in an educational context; and the importance of evaluating projects in terms of research methods. Three research questions were posed: what is the educational benefit of using Rumie? [Value dimension]; what criteria can be used to evaluate the use of Rumie in the field? [The capability dimension]; what feedback is there from students, teachers, etc. [The collaboration dimension]. Quantitative usage data and qualitative feedback were collected. Findings show that the tablets help improve pupils math and reading abilities and the educal entertainment does not appear to be at the expense of learning about more traditional subjects. Feedback from teachers and pupils appears to be extremely positive. More specific lessons learned about research methods in evaluating social entrepreneurship projects in developing economies are identified; and implications for adapting the theory of disruptive innovation.

Keywords: Edtech, social enterprise, non-profit, education startup, technological innovation, education, business startups, education industry, Africa

Collaboration, Geographical Proximity and its Effects on Firm's Open Innovation Activities

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Abstract: Open innovation paradigm has attracted a great deal of attention from scholars during the last years (Chesbrough, 2003; Chesbrough et al, 2006; Vanhaverbeke et al. 2012). External knowledge such as ideas, technologies, etc. generated and developed by others outside the company, is thought to become one of the key factors that foster successful innovation process and performance (Bayona et al, 2001; Miles et al, 2004; Miller et al, 2007; Kafouros et al, 2008; Kafouros and Forsans, 2012). While collaboration with geographically close partners and their impact on innovation performance are the central focus of open innovation literature, little has been written about the characterization of the innovation partners' profiles and how these different profiles of partners in the innovative ecosystem may affect the portfolio of a firm's innovation activities. Thus, this paper aims to reveal the role played by open innovation ecosystem's actors, external sources of knowledge from partners, geographical proximity and its effect on the firm's open innovation activities. Several questions have been raised accordingly in this paper: Do firms collaborate more with domestic or foreign partners in the open innovation activities? What is the density of foreign partners? How does the geographical proximity of external partners affect the firm's innovative activities profiles? How does openness in terms of partners' depth and breadth and geographical proximity affect the portfolio of open innovation activities? Our study contributes to the growing research topic on open innovation, by focusing on the profiles and interactions of firm's partners (domestic and foreign) and innovation activities portfolio. We believe that the range of open innovation activities partially depends on the characteristics of the network partners, as external sources of knowledge, and their geographical density and proximity of partners. We state that companies have to internationalize their activities enough to be active in various knowledge markets in order to successfully develop innovative activities and products. The paper presents theoretical arguments, which result in a formulation of the conceptual framework and propositions for further empirical research.

Keywords: collaboration, geographical proximity, open innovation, innovation ecosystem, open innovation activities

A Poverty Reduction Oriented Approach to Small Business Development in South Africa

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Abstract: Despite the huge incentives and policy interventions for small business development instituted by the South African government over the past fifteen years, there is limited evidence of transition of informal businesses to the formal sector. Furthermore, the high rate of unemployment in the country points to the growing incapacity of mainstream small scale micro and medium enterprises (SMMEs) to address the chronic social ills of poverty, unemployment, inequality and social deprivation ravaging the country. This theoretical study renders a detailed narrative of the status, growth opportunities and current setbacks of the South African SMME sector with a view to proposing best practices of SMME development and economic sustainability. Building on the current government interventions designed to promote growth without equity, we propose that advancing a poverty-reduction approach to entrepreneurship hinges on the intersection between sustainable seed funding, commercialization of business activities, strong managerial approaches and capacity development of SMME managers' skills. Such an integrated approach strengthens the potential of SMMEs to survive the competition from established commercialized enterprises.

Keywords: small business, entrepreneurship, entrepreneurial orientation, poverty reduction

Growth Management of Digital Health Care Service Start-Ups – California Case Studies

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Abstract: Numerous universal models and frameworks have attempted to clarify management priorities during the early stages of business growth. However, a need for focused and context-specific analysis exists. This study seeks to clarify the early development of digital health care service firms in Southern California. To summarise the research problem, the authors ask these questions: How do the experiences of managers in digital health care service start-ups relate to the stage framework assumptions in Californian contexts? What context-specific viewpoints should be considered when using stage frameworks in the Californian context? In this explorative multiple case study, we devise and test a four-stage framework describing the early stages of digital health care service firms, through five case studies. The study utilises the sequential incident technique (SIT) and semistructured interviews in data collection. The applicability of the framework will be clarified in this study; moreover, an analysis of context-specific viewpoints will be provided. It is necessary to recognise these viewpoints when applying this framework to Southern California. The research focus of this study is limited to the context studied, which limits the applicability of the explorative and descriptive results to other contexts. The results of the study may be used effectively in intermediary organisations and companies as a framework for predicting the managerial challenges and opportunities in the early stages of digital health care service firms. These context-specific viewpoints and their effect on the early stages of companies have not been broadly studied. Thus, this study provides new insights into growth management in the studied context.

Keywords: stages of growth, growth process, sequential incident technique, digital health care service firms, entrepreneurship, micro-entrepreneurship

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Efficacy of Vocational Training as an Integral Part of Entrepreneurship Education as a Transition Programme for Persons with Intellectual Disability in Oyo State

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Abstract: Entrepreneurship education no doubt has been accepted as a vital tool in the education of persons with intellectual disabilities as it forms the major objective of their education. It is a system through which pupils with intellectual disabilities could be well rehabilitated appropriately in the area of academic, social ,vocation, personal and psychologically. This paper attempt to review the place of entrepreneurship education in the education of persons with intellectual disabilities and also examine to what extent the policy provision for entrepreneurship education has been achieved in the schools for persons with intellectual disabilities with suggestions and recommendations that will better enhance the full implementation of entrepreneurship education in these special schools for optimum success and self sustenance.

Keywords: entrepreneurship education, intellectual disability, rehabilitation

The Contributions of Obafemi Awolowo University's Entrepreneurship Business Resource Centre (EBRC) to Community Business Development

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Abstract: The study examined the paraphernalia and the relevance of Entrepreneurship Business Resource Centre (EBRC) in the Institute for Entrepreneurship and Development Centre (IFEDS) to the nascent students of Obafemi Awolowo University (OAU), Ile-Ife by examining the influence of capacity building and financial support on business start-ups. Primary data was collected through questionnaire from 120 students, randomly selected and surveyed out of the 575 nascent students in IFEDS, Obafemi Awolowo University (OAU) who had entrepreneurship

as one of their courses and also through interview with the manager of the EBRC in the University. The results revealed that the Centre was strategically located in the Faculty of Social Sciences building to serve as an avenue through which nascent students learn major business concepts. The data produced a t_{cal} of 2.747, with df = 2, p = .007 at 5% level of significance affirming that EBRC had not helped respondents in providing direct financial assistance to respective clients. The data further generated a t_{cal} of 11.118, with df = 1, p = .000 at 5% level of significance affirming that the tactical entrepreneurship trainings received by respondents had helped them in assessing data base information on business creation/growth. The study further showed that the Centre facilitated the change of students' mindset from job searching to job creation, though with some attendant challenges: lack of adequate space arising from its spatial location, inadequate internet facility and inability to provide seed money. The paper concluded that government policy should focus more on the establishment of more entrepreneurship centers that are strategically located in all Nigerian universities and accessible to nascent students with provision for start-up loan facilities.

Keywords: entrepreneurship, resource, seed capital, spatial location, nascent students

Analysis of Factors Affecting UK Small and Medium Enterprises' Corporate Sustainability Behaviour

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Abstract: In spite of the significance of UK Small and Medium Enterprises (SMEs) to UK economic activity, and their identified collective negative environmental impacts, previous studies suggest that such organisations are generally reluctant to engage in sustainability as a business practice. Prior attempts made to improve corporate sustainability in this sector by suggesting potential gains in competitive advantage, financial returns, and market share have so far seemed unconvincing. Where SMEs have recognised the importance of incorporating sustainability into their business practices, there has been a significant disparity between this awareness and the actions taken, resulting in what Revell et al. (2010) term the "value-action" gap. Since SMEs constitute the majority of private sector businesses in the UK, it is imperative that they are involved for sustainability to become a reality overall. This study, therefore, sets out to explore the factors that influence

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UK SMEs' engagement in corporate sustainability. The study was conducted in two parts – a preliminary study and a main study. The preliminary study consisted of semi-structured interviews with ten SME owner/managers. Based on the findings from these interviews, and also on a review of relevant theories, a theoretical underpinning that combined the 'Responsible Environmental Behaviour' (REB) model with stakeholder theory was identified as suitable for the main research. The latter consisted of semi-structured interviews conducted with thirty SME owner/managers from a cross-section of companies in the manufacturing industry. Data were analysed following a data-driven, thematic qualitative analysis process adapted from Braun and Clarke, and used NVIVO 10 for structuring and analysing the results. The analysis identified a range of factors important for engaging SMEs more fully in corporate sustainability approaches. A key factor is capacity building, while others include organisational attitude, stakeholder influence, resource constraints, and situational factors. This study contributes to the discourse on sustainability in SMEs by employing the unique multi-theoretical framework of the REB model and Stakeholder theory to propose a set of factors could prove beneficial for engaging SMEs in corporate sustainability. Furthermore, the findings from this study should have implications for government and other stakeholders in developing policies for better engaging SMEs in corporate sustainability.

Keywords: corporate sustainability behaviour, small and medium enterprises, responsible environmental behaviour theory, stakeholder theory

Innovations in Ice Cream Production in Baltic Sea Region

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Abstract: The EU Baltic Sea region counts 85 million inhabitants and eight countries (Sweden, Denmark, Estonia, Finland, Germany, Latvia, Lithuania and Poland) which share common features and challenges. This is an area of intensive political

contacts, economic and cultural. This is also the area of the development of trade. Ice cream market is one of the most growing markets in Europe, both in terms of quantities sold and in terms of the number of new products. The largest consumption in the countries of the Baltic region are observed in the northern part of the region, Swedes are the world's biggest eaters of sweets and Europe's biggest consumer of ice cream with the average 13% litres of ice cream per year and Finns are the leading consumers of ice cream per capita in a European context. Therefore the aim of the study was to analyse the trends in the production and consumption of ice cream in the Baltic Sea region to specify which of the innovations in the ice cream market have the opportunity of success. Analysis showed that for the development of the ice cream market in BSR can contribute following phenomena: on the one hand consumer interest in artisan-produced ice cream, with local ingredients, on the other hand – some pro-health solutions - ice cream with reduced sugar/fat/calories content or lactose/dairy-free ice cream. Innovations in ice cream are mostly desired by consumers and can motivate further development of these products.

Keywords: ice cream, innovation, Baltic Sea Region

Knowledge Differentiation as Basis of Innovative Activity

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Abstract: This study focuses on the analysis of microdata (enterprise level) as the principal instrument to reveal facts and hypotheses describing the innovation activities depending on a quantity of new products made by the company and structure of costs for different kinds of knowledge. The idea locates about strategies generation of various types of knowledge (operational, structural, functional) considerably differ. During the research the following hypothesis was tested: There is a correlation between the structure of costs for different types of knowledge and the quantity of new products made by the company. Research project consisted of three stages. Firstly, authors formed the stratified random sampling by way of stratification of the parent population (102 enterprises, from six industries). The second step, to identify the pattern of increase knowledge process. The third stage included a series of structured interviews with representatives of leading organizations in the field of the innovative process. As a result of conducted research: There is an interrelation between the new products manufactured by the company and the structure of costs for different types of

knowledge. The authors prove that efficient, innovative business development, particularly in the difficult economic condition, stresses the importance of organizing optimal cost structure for different types of knowledge.

Keywords: knowledge differentiation, knowledge management, innovation, costs structure

Innovative and Entrepreneurship Education to Increase Employability Skills

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Abstract: Skills are the basis of graduates' employability. Due mainly to the persistent high levels of unemployment between youngsters, the issue of graduates' skills earned a worldwide importance both to scholars and decision makers trying to tackle unemployment issues by providing students with skills and competences that fulfil the needs of the very competitive current labour market. This led to several reforms in order to stimulate collaboration on educational innovation, to promote entrepreneurship education, and to improve university technology and knowledge transfer to industry and society. This paper aims to contribute to the skills agenda debate and therefore proposes a framework of a mix key skills that may be used to inform and structure innovations in the current curricula. The framework has been developed and applied within the EuropeHome project. To this purpose a total of 1507 questionnaires was applied to key stakeholders – students (from economics, business and engineering fields) and academics from five European countries (project partner universities) in which are identified the graduates' skills shortages as well as the best improved/covered skills in the current curricula. The skills shortages identified are: personal skills, interpersonal skills, communication skills, intercultural skills, thinking skills and entrepreneurial skills. Those skills are the foundation of the proposed framework that suggests that this mix of skills should be integrated and implemented into the curricula of economics, business and engineering academic areas through a group of innovative and entrepreneurship education initiatives, such as a cluster of learning materials focused on the defined mix of skills, aiming to impart these skills through workshops and interactive learning that stimulate self-discovery. The final employability skills outcomes, hopes to assist universities in declaring, assessing, mapping and reporting employability skills outcomes, allowing for a better alignment between graduates' needed skills and the skills developed in the curricula, and thus enhancing graduates' employability.

Keywords: 21st century skills, employability, innovation, graduates, entrepreneurial education

The Drivers of Company Innovation Activities in German Industries

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Abstract: Knowledge management has been becoming a decisive activity in the current openly competitive globalized economy. It has been empirically proven that knowledge, in combination with traditional production factors, drives the growth of enterprises, nations, and regions. Therefore, most countries tend to be knowledge based. The creation, dissemination, and use of knowledge represent key processes that help companies with their innovation activities. Consequently, innovation allows companies to generate added value and get ahead of their competitors. However, a number of recent studies have shown that innovation does not occur in isolation and innovation factors affect each industry differently. This is why economic entities fail – because they are unable to exploit the potential of cooperation (for example, using the Triple Helix principle in networks) and by ineffectively spending public funds to support innovative activities. On the other hand, Germany has the largest economy in the European Union and one of the strongest and most competitive economies in the world (Germany was ranked fourth in the 2015-2016 rankings of the Global Competitiveness Index carried out by the World Economic Forum). This is due to the fact that stimulus for investment, a good climate for innovation, and private-sector investment has crucial importance for the German government. Therefore, the goal of this article is to analyze the drivers influencing businesses' innovation activities in different industries in Germany. We show that different factors influence the innovation activities of different industries. Our results provide (1) practical implications for policy makers (not only in Germany) and (2) an initial analysis of German industries and a proposal for partners and factors that affect the innovative activities of different sectors.

This proposal could help other economies support the creation of innovation (especially, countries from Central and Eastern Europe – the CEE Countries). For the analysis, we created original multiple linear regression models using data from

the Community Innovation Survey conducted in Germany between the years 2010–2012.

Keywords: competitiveness, entrepreneurship, Germany, innovation, knowledge management, the Triple Helix

Interpretation and Construction of Co-Operative Identity at Ideological Level

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Abstract: A co-operative organization is an organized form of collaboration based on widely accepted international co-operative values and principles forming the core of co-operative identity. Pellervo is an interest group and a service organization for over 300 Finnish cooperatives. This study is based on data collected from Pellervo delegation members with an aim to examine, how co-operative ideology is interpreted among a group that consists of key people in co-operative organizations. Data is interesting because Finland is the most co-operative country in the world and Pellervo delegation represents Finnish co-operative organizations broadly. By using qualitative text analysis method we studied how the 27 members of the delegation construct the meaning of co-operative movement and cooperative organizations. The aim was to understand how co-operative identity was interpreted and if the interpretations were collective of fragmented. Based on the analysis we conclude that the interpretations regarding co-operative identity, its central, distinctive and enduring features, were interpreted very collectively. Since the study is based on the premises of interpretative research paradigm, we believe identity at a collective level is an evolving phenomenon constructed by individual interpretations. The findings suggest that co-operative ideology should be promoted actively and with high quality in all areas of life in order to create and maintain the identity of co-operative ideology in the society.

Keywords: cooperation, co-operative movement, organizational identity, multiple identity, ideological identity

The Appeal and Correspondence of Co-Operative Values and Personal Values of the Youth

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Abstract: The motivation of this study is the ongoing attitudinal change towards more sustainable values and the notion of young people's frustration towards the "cold and hard values" gaining more foothold in our society. We used a mixed methods approach. At first we introduce findings of a quantitative survey collected from 3680 Finnish students identifying their personal values and attitudes towards different business forms. Benevolence, security and self-direction were the most appreciated values among the sample. In general it was perceived that hard values direct business life as a whole whereas attitudes towards co-operatives appeared positive. Next by using qualitative textual data gathered from 36 students we aimed at increasing understanding of why co-ops are perceived positively and how the established idea of co-operatives was interpreted. We identified four levels of discourses from the data, each describing co-operative ideas from different viewpoints: ideological, national, organizational and personal. Based on the findings, we conclude that co-operative ideology is regarded as appealing due to its emphasis on social responsibility. At the national level the data permits the conclusion that the attraction to co-operative values may partly be a culturebound matter. At the organizational level responsibility and security were emphasized. Co-ops were perceived to stabilize the economy, contribute to local areas and provide individuals with secure employment. At the personal level these aspects were associated with security and continuity in the fast changing societies. We conclude that the co-op values seem to correspond well with the personal values of the youth and that the appeal of co-ops is based especially on the security that arises from co-op values and principles.

Keywords: youth values, co-operative organization, co-operative ideology, co-operative values, security

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A Stakeholder Approach to Advancing Business Social Responsibility of Small Tourism and Hospitality SMMEs in Bloemfontein, South Africa

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Abstract: This theoretical study investigates the business social responsibility (BSR) of small, micro and medium enterprises (SMMEs) in the tourism and hospitality sector in Bloemfontein, 'invisible' firms that have contributed significantly to the economy of South Africa. While the BSR initiatives of small firms in general is gaining currency in developing African economies, those of emerging firms in tourism and hospitality industry are only starting to surface. Mindful of the close proximity of SMMEs to their local communities and their dependence on such communities' social and financial buy in for their survival; their BSR activities deserve incisive inspection to ensure that communities immensely benefit from SMMEs activities. As such, this paper addresses a prime question in the small business literature: How do small hospitality and tourism firms in Bloemfontein employ BSR practices and engage their stakeholders to seize hold of their business sustainability? Although mainstream literature has conceived corporate social responsibility as the preserve of large corporations, an emerging, fragmented body of literature on the social involvement of SMMEs positions these firms as equal and effective agents of BSR activities. This theoretical paper founded on exploration of extant literature and our personal observations on BSR contributes a conceptual framework for the in-depth understanding of the BSR practices of tourism and hospitality SMMEs. The paper concludes that the same ways "it takes a village to raise a child"; it takes an engaging and proactive community to effectively respond to small business ventures' BSR initiatives.

Keywords: business social responsibility, stakeholders, SMMEs, entrepreneurship, tourism and hospitality and sustainability

Technological Creativity and its Influence on Entrepreneurship Intentions of Vocational Education Students

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Abstract: Entrepreneurship and self-employment have gained currency in socioeconomic discourse of Zimbabwe as cash strapped enterprises struggle to generate enough job opportunities to meet the growing surplus of school-leavers and college graduates in a resource-constrained labour-market. It is therefore, unsurprising that the youth and other economically active population are encouraged to pursue entrepreneurship and incubate new ventures in order to generate selfemployment and avail economic opportunities for their fellow citizens. Yet in view of sharp contradiction between compulsory entrepreneurship in college education and the universal joblessness in the country, tertiary institutions are under tremendous pressure to device unconventional entrepreneurial competencies for graduates to seize hold of venture creation opportunities that optimise corporate and economic value. It is in light of this quest for economic remedies that technological creativity is forwarded as one such entrepreneurial orientation that successfully triggers successful venture creation. This paper, therefore, investigates whether a statistically significant relationship exists between technological creativity and the entrepreneurship intentions of polytechnic students in Zimbabwe. A survey was conducted on first years enrolled for an entrepreneurship course and multiple regression analysis was employed to explore the relationships among entrepreneurial education, technological creativity and entrepreneurship intentions. The results, which supported the proposed conceptual framework, demonstrate the interaction of technological creativity with entrepreneurship education to predict entrepreneurship intentions of students. The implication of such a finding is the need for policy-makers and entrepreneurship education to infuse technological creativity into entrepreneurship education programmes to increase possibilities for authentic new venture creation in resilient economies.

Keywords: technological creativity, entrepreneurship education, venture creation

Holistic Performance Evaluation to Support European Regional Development: University-Industry Perspective

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Abstract: New types of regional level innovation and development activities are posing challenges for the management of such infrastructures. Regional level development and innovation activities may involve partners from the private and public organizations and from the research institutions which all may have different management and organization cultures. One of the main challenges the new types of regional level infrastructures arise is related to evaluation of such policies and development activities. One of the main challenges of the current evaluation frameworks presented to support the evaluation and management of the regional level innovation activities is that they do not pay sufficient attention to designing and building mechanisms of such frameworks and measurement systems. This study presents a process model to designing and building of a performance evaluation system to support the comprehensive performance measurement of the regional development at the operational level. The aim of this is study is increase the understanding of the performance evaluation of the university-industry partnerships in the context of the regional development. The presented framework supports the evaluation of the regional development activities at the operational level. The presented performance measurement system highlights the role of the evaluation as a part of the learning processes in regional development activities

Keywords: regional development, evaluation, performance measurement, university-industry partnerships

Family Firms as Community Innovators in Regional Innovation Platforms

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Abstract: This research aims at increasing understanding about the role of family firms in regional innovation system as well as how family firms are embedded in this system. Therefore the main research question is how family firm's participate in the local innovation system? A concept of "community innovators" is developed and based on descriptive case study, it is suggested that particularly family

firms role in regional innovation system can be characterized as community innovators.

Keywords: family business, community innovators, innovation development platforms

Policy Framework for Supporting Business Ecosystems and Niche Development Through Innovation Policy

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Abstract: Changes in the global operational environment have had an effect on the way firms cooperate and compete, how innovations are created, and how new businesses are born and grow. Lead firms build ecosystems around them in which different companies cooperate to create more value for end customers. Traditional value chains have changed to value networks, and competition happens between different business ecosystems rather than between individual firms. New business ecosystems and technology innovations created within ecosystems and ecosystem niches are important for economic development and potential contributors to wider technological and societal transition processes. However, research on the implications that innovation policy has on the ways new business and innovation ecosystems emerge and evolve is still rather scant. This study, through a literature review, examines the potential of using the ecosystem approach to develop new technology and niche innovation that work as drivers for wider sociotechnical transitions, and based on empirical case study material, this study sketches the basic elements of innovation policy that supports business ecosystem and niche development. The aim of this study is to hybridise 'Moorean' theory of business ecosystems and their development with 'Geelsean' theory of sociotechnical transitions for the basis of new type of innovation policy. The findings suggest that, due to the characteristics and nature of activities within business ecosystems, they are potential seedbeds for niche development and radical innovations. Business ecosystem birth and evolution can be supported with ecosystem-based innovation policy, which is based on, for example, feeding variation, looking for the unknown and unexpected, and platform development through, for instance, public procurement. Supporting pilots, demo phases, and rapid prototyping are also some ways to enhance business ecosystems and niche development. This study contributes to both theory and practice of innovation policy. It provides a new perspective for innovation policy based on the concepts of business and innovation ecosystems connected to theory on sociotechnical transitions. The results of this study offer a framework for formulating the practical innovation policy operations that support new business and niche development.

Keywords: business ecosystem, innovation ecosystem, innovation policy, entrepreneurship, niche innovation, innovation platform

Design Thinking Methods and Creative Technologies in Virtual Worlds

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Abstract: Globalization and the virtualization of business has highlighted the challenges of managing a dispersed team and have encouraged further research into the benefits of face-to-face communications and how that might be simulated in a virtual world. It is anticipated that high profile research and development projects, such as Oculus Rift, and High Fidelity, could see a revived interest in virtual reality and virtual worlds and how these could augment design thinking for online collaboration. This research project was informed by a review of the literature with relevance to design thinking, the virtual, co-design, human centered design, and tacit knowledge sharing. This research project examined how virtual teams could use prototype tools and modes of design thinking by geographically dispersed groups within a shared virtual space. More specifically, it examined how teams of creative technologies students both apply and learn design thinking, by creating and using collaborative tools, designed in a virtual world, to be used in a virtual learning environment. The undergraduate students studying a design major in business will be asked to engage in a transdisciplinary dialogue with students from another school of creative technologies using the context of a virtual world. The research follows a constructivist approach to teaching the business students design collaboration to review the benefits of face-to-face collaboration, and how that might be simulated online in a virtual world using those tools and methods. The study demonstrates innovation in a number of ways through virtual collaboration between diverse students of business and creative technologies using design thinking methods and methodology. The paper will also present how business students understand design thinking and illustrate the barriers to innovation in a virtual simulation through iterative prototyping virtual tools that encourage codesign and human centered design. The paper concludes with some findings from the data collected during the research project, with some early commentary and discussion of those findings.

Keywords: design thinking, creative technologies, virtual teams, virtual worlds, face-to-face simulation, design collaboration

Market Response to Innovation Projects: The Evidence From the Russian Financial Market

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Abstract: The aim of this study is to analyze the character of the financial market's response to information on innovative investments made by Russian companies. The key objective of investments is to create value, so the research question is whether investors perceive value creation from innovative investments. This problem has an increasing importance during crisis period. Managers should maximize value for their shareholders, but due to the rationing of capital, they need signals regarding which types of innovations are able to create value. These signals are provided by the market: if share prices are going up after the announcement on innovation-based investment, it can mean that investors believe that this new product, technology or service is valuable and promising. Though the Russian market is the focus of this study, the problem has a broader importance. In theory, innovation is considered to be one of the most important drivers for companies' development and competiveness; nevertheless, many researchers, analysts and managers fear that firms do not invest enough in innovation. Some critics assert that an earnings-focused, short-term orientation on stock prices may decrease the amount of investments in innovation that typically have a long payback period and bear high risks. However, accurately assessing market returns may be critical to understanding how markets respond to innovation and motivate firms to invest in innovation. Using event study, we tested the sample of 149 announcements on companies' investments in innovation projects. The data sample consists of announcements of companies traded on the Moscow Interbank Currency Exchange between 2008 and 2013. To reveal differences in reaction to special types of innovation, a regression analysis was implemented. The main finding of the study is that the cumulative average abnormal returns to all announcements in the sample are positive.

Keywords: innovation projects, market reaction, event study, abnormal return, Russian market

Social Network Analysis and the Study of University Industry Relations

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Abstract: The aim of this work is to give an overview on the development of theoretical concepts and methodological approaches to investigate innovation networks, in particular the use of social network analysis in the study of university industry relations. The structure of networks can be analysed through the lens of Social Network Analysis. This methodological approach is described and its fundamental concepts are presented. The paper then reviews the applications of this approach on the study of university industry relations. These relations can be considered as an innovation network, in the sense that the interactions established by its participants have more or less defined innovation goals. Different structures in the relations may result in different innovation outcomes, and the use of SNA may be particularly useful to understand differential outcomes. It is thus important to take stock of the knowledge concerning the efforts that have been made to probe the complex phenomena of university industry relations and, in particular, how approaches based on social network analysis have been used to understand it. This work is based on a review of available literature on the topics. The paper aims at systematizing the information and knowledge related to the application of SNA on university industry networks, highlighting the main research pathways, the main conclusions and pointing possible future research questions.

Keywords: innovation networks, university-industry relations, social network analysis, review

A Framework for Marketing IoT-Based Innovations to the Next Billion

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Abstract: This study deals with the marketing of Internet of things (IoT)-based products and services to underserved consumers in emerging markets. In recent years, this segment has shown tremendous resilience despite harsh macroeconomic conditions. This has prompted many technology companies to venture products and services for this market segment. However, the marketing of IoT-

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based products and services must adopt a balanced approach to entice the high value-demanding consumers of this segment. This paper presents a marketing framework based on the outcome of qualitative and quantitative research conducted in urban slum communities in Kolkata and Ahmedabad, India. The study was concerned with a particular service — providing employment to the informal job market. Findings suggest that awareness is dependent on three components — perceived value, social acceptance and usability. Perceived value arises from cost benefits and relative efficiency compared to existing systems. Social acceptance relates to cultural integration and localization of the service. Usability has a localization component to it and training in use of the system. An IoT-based service that produces value for its users while at the same time providing a culturally integrated and localized experienced would gain greater traction among users in emerging markets. This paper further reports captured models for IoT-based innovations suitable for urban poor communities.

Keywords: IoT, innovation, marketing framework, urban slums, underserved communities

Entrepreneurial Identity and Leadership: The Research Imperative

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Abstract: Within the last two decades entrepreneurship education has exponentially grown within UK Higher Education Institutions and has thus seen the development of Entrepreneurship Education as an academic field of inquiry. Many scholars have focused on trying to understand both the stated outcomes and intended outcomes of this type of education. Although focusing solely on the outcomes of entrepreneurship education is problematic as there is still much theoretical debate on what it takes to develop entrepreneurial individuals. The literature on entrepreneurial learning suggests that the creation of an entrepreneurial identity in nascent entrepreneurs is as critical as the development of skills which enable them to act entrepreneurially. Although the literature surrounding entrepreneurship education in the UK has not focused on exploring participants' identity construction, identity construction has often been used with successful entrepreneurs who are seeking to review their entrepreneurial life through narrative storytelling. Supporting the aspect of identity construction is the development off entrepreneurial leadership. Traditionally entrepreneurs have been agents for change in the economic sphere but increasingly they are also becoming the drivers of social change and innovation, altering the future of work, the way organisations are designed and redefining whole industry dynamics. Whilst at the same time it could be argued that all leaders have to be entrepreneurial given today's climate of rapidly shifting economic forces, prolific technology, demographic fluctuation and social change. Consequently, these leaders need the capacity to identify and solve complex multi- faceted problems by mobilizing entrepreneurial attributes in many different contexts from governments, higher education and global corporations. This paper reviews the literature of entrepreneurial learning, entrepreneurial identity construction and entrepreneurial leadership. As research within entrepreneurship education has not focused on identity construction this paper will link the three areas together discussing how identity construction and entrepreneurial leadership in entrepreneurship education can be explored further in order to understand participants experience of Entrepreneurship Education. The purpose of this paper is to support the suggestion that further research is needed to explore how participants of entrepreneurship education construct entrepreneurial identities and establish a propensity for entrepreneurial leadership.

Keywords: entrepreneurial leadership, entrepreneurial learning, entrepreneurial identity construction innovation

An Attempt to Identify a Typical Regional Food Product for Baltic Sea Region

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Abstract: Meal eating patterns are changing. Many factors influenced on it, e.g. new technologies of food storage and preparation, new ingredients and possibilities to combine. The contemporary consumer can choose between very traditional and super modern proposition. In European Union countries as well as in Baltic Sea region grows the importance of return to traditional methods of food production. Finding the similarities and differences in traditional food products originating from Baltic Sea region is very difficult because of language differences and

various types of examined studies. Herrings are very popular in countries in the Baltic Sea region and often distinguish as products from specific regions, as well as characterized by the traditional method of production. Examples of such products are German Glueckstaedter Matjes, marked with protected designation of origin (PDO) and Polish Kashubian herring, placed on the list of traditional products conducted by the Ministry of Agriculture and Rural Development. Traditional and regional products are in some sense negation of innovative products, and the only possible innovation is to implement a marketing innovation involving the appropriate positioning and locating these products as a symbol of the BSR. The aim of the study was to find a product that would be typical for the Baltic Sea region which the new positioning and innovative placement on the market can bring effective benefits and simultaneous promotion of BSR. Fish product - herrings was indicated, on the basis of pilot study as a product that is consumed in all Baltic countries. The study was conducted using a consumer panel consisted of 30 educated in sensory analysis persons aged 20-50 years. The degree of acceptance of the herrings prepared in the traditional way for Baltic Sea region countries was rated by using 7 point hedonic scale. Statistical analysis was used to point the most preferred sensory attributes of herrings. The results showed that the less accepted herrings were those with sweet-sour and spicy flavour and the most accepted those with salty-acetic flavour. Sensory quality differentiators of herrings could allow implementing such product on the Baltic Sea region market as a regional product characteristic of the entire region.

Keywords: herring, traditional food

Digital Healthcare Service Startups: Case Studies From Sweden

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Abstract: Globally, healthcare is the biggest service industry, but healthcare practices have traditionally been slow to adopt new possibilities afforded by technologies and e-business. Digitalization can revolutionize healthcare delivery and open business opportunities for innovative start-ups. New companies in the healthcare service sectors are an important source of new jobs and significant promoters of new service innovations. The start-up stage is the most critical period for the survival of a new company, as decisions made during the early stages of growth have

a definitive influence on its productivity and success. This study seeks to clarify the early stage of start-ups in the digital healthcare service business in a Swedish context. We utilize critical incident technique (CIT) and semi-structured interviews in data collection. In addition, through six cases of digital service-based start-up companies, the first phase of the four-stage service business framework is tested and considered: How do the experiences of start-up entrepreneurs in digital healthcare service firms relate to the assumptions of the stage framework's startup stage in a Sweden context? The results provide partial support for the applicability of the service framework. Contrary to framework, cases have allocated resources to strategic planning even at very early stages. In addition, the results of the study include perceived context-specific viewpoints of healthcare business from the start-up entrepreneurs' perspective. The results of the study may be effectively used in intermediary organizations such as public advisory services. and new business can utilize the framework for predicting the early stage of digital healthcare service firms. Furthermore, the results may be of interest to the public sector, which has an essential role in the healthcare industry as a service provider and purchaser, but also as a creator of business conditions and opportunities. Service-based digital healthcare start-ups will provide fresh insights about the challenges and opportunities within the eHealth business sector.

Keywords: start-up, healthcare, eHealth, digital service, early stages, growth

Informal Finance and Growth of Women Businesses in an Emergent Entrepreneurial Ecosystem: A Case of Indian Punjab

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Abstract: <u>Purpose</u>: This study, aim to explore the role of women in informal entrepreneurial finance in rural India and the impact on the subsequent growth of their microenterprise. It adopts a contextualized, less Western-centric lens to approach the phenomena being investigated and in order to conduct this qualitative study in a unique and highly gendered ecosystem – the rural parts of the Punjab, northern India. <u>Methodology</u>: A qualitative approach has been employed involving in-depth, face to face interviews based on a semi-structured questionnaire among 185 rural microenterprise households (demand side), and 10 informal lenders (supply side) located in five districts (Gurdaspur, Amritsar, Jalandhar, Nawanshahr and Patiala) of the Punjab, India. Hence the primary data for this study has been collected from the five districts, representing different agro-

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climatic zones of the Indian Punjab. The questionnaires and semi-structured interviews were carried out face to face and in focus groups with respondents from both the supply and demand side. Results/ findings: Our study unveils some unique contextually novel insights, including particularly distinctive types of informal lenders - including arthyias, qhumihar (potters), kirana store owners (village grocers), shahukars (village goldsmith) and zamindar (landlords) - and focuses upon the actual practice of lending (in terms of how the process of decisionmaking to women entrepreneurs is determined by contextual factors, such as relationship lending practices on the basis of financial status, family background). For example, lenders are aligned based on caste lines and grant loans on personal recommendations and guarantee to persons known to them. This paper makes an important contribution to the literature on the role of women entrepreneurs and informal lending in a novel emerging economy context. It provides both quantitative and qualitative empirical evidence on financial lending and the borrowing structures in the Indian State of Punjab. This study also builds on extant theory by using a contextual framework for analysis.

Keywords: women entrepreneurs, informal lenders, entrepreneurial finance, firm growth, entrepreneurial ecosystem

Development Trajectory of an Innovation-Based Environmental Technology Start-Up

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Abstract: This research paper focuses on the growth models of new business ventures and their applicability to a specific type of start-up, environmental technology—based growth company via a case study Start-ups companies are a focal point of interest of this decade. Start-ups develop products and services in conditions of market and technological uncertainty and competitive volatility. Due to their crucial role in the net job creation there is a growing need and interest to understand, model and develop start-ups. One industry of high interest in regards of start-up activity is that of environmental technology business, as it is addressing needs for solving problems related to such global issues as pollution, waste management and need for renewable energy sources. However, there is a very limited amount of prior research focusing specifically to start-up companies in this field. E.g. the growth stage models of start-up companies do not take in account the time dimensions caused by capital and regulatory demands that differentiate the development pace and stages of development of an environmental technology

start-up from its peers in other industries. On the other hand, general research of environmental technology businesses often lacks the entrepreneurial and start-up focus, bundling efforts of new ventures in the field together with major projects by established companies. The aim of this paper is to provide a framework that helps understanding the growth process of new ventures in the aforementioned industry. In this case study the authors assessed the suitability of models of growth dimensions, sources and obstacles proposed by earlier research and literature to a case company: a start-up company providing environmental technology for global business-to-business markets. Via qualitative, interview-based data collection among the company stakeholder and external business experts and analysis of the obtained qualitative data the authors were able to draw conclusions regarding compatibility of the case to the earlier models of new venture growth. The results obtained shows that despite the common features between the case company's growth trajectory and models proposed by earlier research, none of the stage models offers a full match. Based on the findings the authors propose a new, partly cyclical model of start-up growth for further elaboration.

Keywords: environment, entrepreneurship, sustainability, innovation, growth, start-up

Anticipation of Technology as an Entrepreneurial Skill

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Abstract: Anticipation of technological change is crucial for startup companies and entrepreneurs to survive and grow in the volatile environment. The concepts, processes and tools have mainly been developed in and for larger corporations with ample resources that can run the often lengthy and slow processes of technology anticipation (TA). The dilemma facing TA in entrepreneurial startup companies is that they need to build and commercialize their first technology and prepare simultaneously to its disruption – to anticipate. This paper studies the rationale of TA and the different TA approaches utilized in technology-based young and evolving companies and proposes a framework – a taxonomy of TA approaches in entrepreneurial context for further study.

Keywords: technology, foresight, anticipation, roadmapping, disruption, innovation, entrepreneurship

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Trust and Resilience in Entrepreneurial Perspective: Empirical Findings From the Developments in Entrepreneurs' Stories

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Abstract: This paper discusses trust and resilience in integrative perspective. They are looked as intangible resources for organizations. Trust and resilience are studied empirically within entrepreneurial context. The aim is to increase understanding of trust and resilience in entrepreneurial activity. The qualitative narrative and interview data is based on entrepreneurs' stories in care business. Trust and resilience are scarcely discussed integrated and from the intellectual resource perspective. Entrepreneurship is traditionally looked from the perspective of financial capital and associated risk. Trust is largely discussed as an antecedent or outcome of behavior for collaboration capability and resilience is seen as the ability of an organization for overcoming unexpected environmental changes. However, it is still largely unknown how trust and resilience are perceived among entrepreneurs and how the two are possibly related which is our interest and question in the empirical study. The findings reveal the connection between trust and resilience showing the elements in entrepreneurial process that lead to resilience generation and a courage to trust in own competencies. Findings will be discussed in more details and implications made for entrepreneurs and managers.

Keywords: entrepreneurship, care business, intangible assets, narratives, resilience, qualitative study, trust

Entrepreneurial Orientations of Youth in J&K, India: A Case for Educator Influence

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Abstract: Prevalence and proliferation of Entrepreneurial Orientations in an economy is affected by a diverse blend of demographic factors including Socio-Economic characteristics and academic profile. Through present attempt, writers have tried to compare and contrast the employment preferences (Government Sector Employment, Private Sector Employment and Self Employment) of the

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graduating students of a single State having significantly diverse ethno-cultural backgrounds. The study is based on primary data collected from J&K State of India, comprising of three geographically, culturally and ethnically distinct regions of Jammu, Kashmir and Ladakh. The State, despite of possessing a vast tourism potential, is not able to attract internal or external investment, due to factors such as lower worker productivity, easy going work culture, ongoing terrorism faced in various parts of the State etc. This has resulted in significant level of unemployment among educated youth. The only solution to such a problem seems to be in enabling external investment in true sense and inculcating entrepreneurial zeal among its subjects i.e. the natives. A sociological approach is applied to gather information about entrepreneurial orientations across the three distinct regions. The findings reveal a predominant preference for the employment in the government-sector. Also, there are significant differences in entrepreneurial orientations of respondents belonging to different regions within the same State. The findings point to the need for a differential approach towards policy making aimed at entrepreneurial promotion. Further, in absence of a fledgling entrepreneurial environment, the educators are likely to be the key influencing force from outside of the home/family of students. They can play a bigger role in inducing the entrepreneurial zeal and informing the government initiatives regarding the same. This paper thus prepares the background and presents a case for generating entrepreneurial orientations of the professionally graduating students by harnessing the influence wielded by their teachers or relatives, particularly in case of welfarestates like J&K. Developing custom-made programs for entrepreneurship and simultaneously using the voices of educators could bring about the much desired change in society, clamouring to induce entrepreneurship and promote private sector.

Keywords: entrepreneurial orientations, ethno-cultural differences, J&K, entrepreneurial promotion policy, educator influence

Approach to Quest Entrepreneurial Engineering Opportunity and an Application Example for Development of Breakthrough Innovation

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Abstract: A case study was undertaken over engineering students' semicontrolled practice to develop promising engineering concepts of breakthrough innovation. We studied the essential topic of entrepreneurial management how to develop concepts of innovation products. As a result we offer five steps managerial approach that young engineers can use for development of concepts of break through innovations. The five steps managerial approach is designed especially to match their engineering competences. Graduates and students of engineering schools that try to pursue entrepreneurial career as founders of technology startups face an issue how to apply their engineering competences in the best value by creating innovation and high demanded products. It is essential to study approaches in breakthrough product development that will assist young entrepreneurial engineers to generate business ideas, create value propositions, and concepts of innovative breakthrough products. Knowing approaches increase productivity of idea generation by navigating thoughts and by screening ideas quality, however, on the other side having lack of structured outcomes, and/or being very sensitive to systems of intuitive belief (for example, stereotypes) of individuals. The others, for example, AHP-based approaches (analytic hierarchy process) are too sophisticated techniques that involve complex procedures and as a result have usability barriers for young entrepreneurial engineers. In our case study we formulated the five steps approach and used disclosed controlled observation method to research how young engineers applied it to define entrepreneurial engineering opportunities. The observation method was realized by setting research environment through series of workshops for engineering school graduates and current students. At the workshops we gave students the five steps approach how to develop a breakthrough innovation product and observed their progress through obtained results. At the end of the paper we propose five steps approach for engineers to define engineering opportunities for development of breakthrough innovations that have high patentability perspective. Applicability of the approach is demonstrated through the case study of development of the training system for swimmers that today become basis for the university startup (www.aqVatech.ru).

Keywords: entrepreneurship, breakthrough innovation, new product development

Evolution of the Russian Regional Structure in the Space of Indicators of Innovation Development

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Abstract: Balanced regional structure of the country is one of the most important factors of the sustainable economic growth. Particularly it concerns innovation development. More generally, not only the structure itself does matter but also its stability. This issue becomes especially significant when political and economic environment of the country is complicated enough. It is vital for the Russian Federation to keep the sustainability, so the analysis of the regional structure evolution could be helpful in forming the efficient policy of innovation development for the country as a whole and for its regions. Russia consists of 85 regions; it is not too much for statistical modelling, so the analysis in high dimensional space looks quite artificial. That is why we can hardly use more than one indicator on each main aspect of innovation development. Parametric approach is the most efficient way of the modelling when the conditions for them are satisfied, and we specify the model as a mixture of lognormal distributions and find the maximum likelihood estimates of its parameters. The estimates are helpful for either traditional crisp clustering or soft classifying of the regions in the space of innovation activity indicators. To analyse the dynamic of the structure we trace its general parameters and changes in the groups of regions.

Keywords: parametric decomposition, stratification, expenditure on innovations, results of innovation activity

A Case Study of Entrepreneurial Ecosystem Related to Growth Firms

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Abstract: Firm growth has received wide attention from policy makers during recent years. However, there is a research gap in examining the value of entrepreneurial ecosystem related to growth firms. The concept of entrepreneurial ecosystem refers to the interaction that takes place between a range of institutional and individual stakeholders so as to foster entrepreneurship, innovation and SME growth (Isenberg 2010). The aim of this paper is to examine how the entrepre-

neurial ecosystem can either enhance or hinder firm growth. This paper contributes to understanding the effects of the entrepreneurial ecosystem related to growth firms using case study method. The objective of this study is to analyse how the entrepreneurial ecosystem related to growth firms supports 1) the motivation of entrepreneurs to grow the firm, (2) the organic and non-organic growth strategies of firms and (3) managing the consequences of firm growth. The data of this case study consists of thirteen interviews from different stakeholders of the entrepreneurial ecosystem related to growth firms in the region of South Ostrobothnia in Finland. The stakeholders represent the fields of finance, private and public experts, education and local universities as part of the ecosystem. Data is analysed using conventional content analysis. Results show that the entrepreneurial ecosystem acts in three levels: individual/firm level, micro-environmental level and macro-environmental level. The support of the entrepreneurial ecosystem is seen most difficult in the individual/firm level. Motivation of entrepreneurs to firm growth is hindered with different psychological factors of acting stakeholders. On micro-environmental level the support is active especially with nonorganic growth strategies but there seems to be a problem with the connectivity and with the finance. Macro-environmental level refers to public policy and cultural attitudes to firm growth. These results shed the light on how to design growth policy initiatives and how such policies actually impact to the growth of SMEs.

Keywords: entrepreneurial ecosystem, growth firms, SME, entrepreneurship

The Creation of a Fast Track, Large-Group Intervention Method: A Case Study

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Abstract: This article reports the testing of a fast track, large-group intervention method, designed to initiate a change process of a Portuguese SME in the IT sector, aiming at increasing the proactivity of its employees. Based on previous work, mixing third generation large-group organizational change methods, classical Organizational Development (OD) approaches, and an adapted version of Creative Problem-Solving (CPS) protocol, the presentation of the case includes an extended diagnosis, the preparation and execution of the company meeting, and the beginning of the implementation of innovation projects. The company meeting was designed to last for just four hours, instead of the two to four days of the

present methods. The diagnosis, made in close collaboration with management, includes the results of more than 30 interviews conducted with internal and external stakeholders, and a small-world analysis technique to determine the existing communication networks, together with possible clusters and brokers. Furthermore, using a content analysis, success stories were collected in order to clarify the strong points for a future organizational culture. The results support the effectiveness of the selected methodology in establishing innovation projects, involving the entire organization, and clarified desirable characteristics for the improvement of the present intervention method, adapted to Portuguese companies. The analysis of the success stories helped to determine the strengths of a future organizational culture, while the use of measures of small-world networks allowed to analyze the existing informal organization, and the way knowledge flows out of the necessary tension between clustering and bridging, necessary for creative benefits. Although this study does not include the entire completion of the projects, due to unpredicted company emergencies, it provides a solid basis for application in future interventions, and to initiate another line of investigation, related with the preparation of team leaders as group facilitators.

Keywords: organizational change, organizational innovation, organizational diagnosis, large-group methods, small-world networks, creative problem-solving

Business Model Innovation: A Comparative Analysis Erik Steinhöfel¹; Holger Kohl² and Ronald Orth¹

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Abstract: In the past, companies often maintained a business model (BM) for long periods. Today, this is no longer possible as changes in the business environment such as inter-industry competition, shifting patterns of demand, new products, production or distribution technologies erode the power of established BMs. As a consequence, companies are forced to systematically manage or reinvent their BMs and become able at doing so. Although companies believe that the management and innovation of BMs can significantly contribute to business success they are often not able to realize such transformation due to a lack of required abilities and knowledge as well as suited processes and mechanisms to support them. Against this background, the focus of this contribution is on current approaches and procedures for managing and innovating BMs. Based on a literature review within the BM discipline and further associated disciplines BMI approaches have been identified and are described, analysed and compared regarding a practical

application. Thus, giving the reader an overview of current comprehensive approaches and thereby establishing a basis for further research and development is the aim of this paper.

Keywords: business model, business model innovation, literature review

Interdisciplinarity in Entrepreneurship Education: A Conceptual Framework Focusing on Pedagogy for Innovation

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Abstract: This paper articulates a conceptual framework for exploring how interdisciplinarity connects with entrepreneurship education. The framework offered in this paper links the themes of entrepreneurship, innovation and pedagogy together with a focus on exploring how interdisciplinary methods of teaching can support educational outcomes in entrepreneurship education. Based on the on-going research conducted within the LAB research group at the Oulu University of Applied Sciences in Finland, this conceptual paper summarizes and integrates relevant concepts to construct a theoretical grounding for entrepreneurship education that targets innovation and real-world business development (Potter, 2008). Specifically, this framework draws upon existing concepts such as project-based learning (Blumenfeld et al, 1991), self-regulated learning (Winne, 2010) and expands upon current directions in interdisciplinary education (Lattuca, Voigt and Fath, 2004) to describe pedagogical foundations that point toward interdisciplinary methods as a support for entrepreneurship education at the higher education level. In addition, the concepts discussed are linked to interdisciplinary practices at the Oulu University of Applied Sciences LAB pre-incubator programs as an example to demonstrate how this framework can be used to research educational outcomes in practice.

Keywords: interdisciplinarity, entrepreneurship, innovation, pedagogy

Design Thinking and Organizational Change: Developing a Human-Centered Culture

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Abstract: As practitioners work to incorporate design thinking in their innovation efforts, they often encounter roadblocks. Though comfortable employing design thinking tools and methods for product, process and service innovation, they find themselves on uncertain ground when it comes to infusing design thinking in their own organization's culture. As a result, there is a strong call for guidance on how to align company culture with a more human-centered and user-driven orientation to foster innovation and creativity in solving problems and creating new value. This paper discusses many successful endeavors in bringing about this organizational change. Examples of effective incorporation of design into organizational values and practice have been collected across a wide range of industries, including manufacturing, sales, service, and public sectors. This study demonstrates a strong marriage between organizational change processes and design thinking tools and methods. Several key themes emerge from this study. One theme involves the use of co-creation, whereby users and employees are engaged in identifying needs and developing solutions. Another theme relates to the use of an experimental process of moving from small prototypes to pilot tests to both gather information and garner organizational support. Visualization, a key tool in design thinking, is also used to develop organizational consensus around future direction and gain commitment for change. Change efforts were often facilitated by providing education and training in design practices used to incorporate user perspectives and create common understanding throughout the organization.

Keywords: design thinking, organizational change, co-creation, innovation

Entrepreneurial Intention and Interest in Entrepreneurship Program Among the new Generation in Thailand

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Abstract: Entrepreneurship education and support are gaining great interest in Thailand. Despite the interest, less is known regarding the level of entrepreneurial intention and the interest to study in such a program. The aims of this research

were (1) to study the level of entrepreneurial intention and factors affecting the entrepreneurial intention among the senior students at Suranaree University of (SUT) and Rajamangala University of Technology Nakhonratchasima (RMUT), the alumni, and others and (2) to study the intention to study in entrepreneurship program. This research adopted a quantitative research method using an online questionnaire to collect data. Questionnaires were developed and adapted from Liñán's EIQ questionnaire. Questionnaires were posted and spread via Facebook groups and Email. Descriptive data analysis was used to analyse the data. Four hundred and twenty-nine people responded to the questionnaire. The results showed that the respondents indicated high-level of intention to be entrepreneurs, however, they indicated the medium level of readiness to be entrepreneurs. Approximately 60% of the variance of the entrepreneurial intention can be accounted for by the linear combination of the 4 measured variables, i.e., the entrepreneurial attraction, perceived social norm, perceived entrepreneurial efficacy, and perceived entrepreneurial skills. Most of the respondents intend to study entrepreneurship at the master level. The preferred characteristics of the master program in Entrepreneurship as suggested by the respondents are the practicality of the lessons, using experiential learning method, internationalization, teaching by lecturers who have experience in business & technology, ability to graduate in the program time frame, and weekend classes.

Keywords: entrepreneurship, entrepreneurial intention, entrepreneurial readiness, entrepreneurship education, program preferences, Thailand

Testing the Relationship Between Resource Availability and Innovation in the Construction Industry

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Abstract: This study focuses on testing the importance of the availability of intangible resources for increasing product innovation. The relationship is verified quantitatively on a sample of 245 SMEs in the construction industry. Small businesses are the ones which struggle most with a lack of resources, while the construction industry lags behind the manufacturing industry in both product and process innovation. The question remains which resources contribute to higher product innovation in small and medium-sized companies within the construction industry. Studies have analysed the influence of individual resources on innovation. This study analyses organizational and reputational resources in relation to

innovation output and tests the influence of third variables (the age of the business, strategic focus and the owner's active involvement in the business). In the case of SMEs in the construction industry, a lack of reputation and stable cooperation with suppliers leads to higher innovation output. The relationship between cooperation and innovation performance is moderated by the strategic focus of the company.

Keywords: innovation, resources, reputation, construction industry

Co-Operative Platforms: Harnessing the Full Potential of Crowdfunding

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Abstract: Technology driven change across industries has put pressure on companies to re-evaluate their relationship between different stakeholders. Furthermore, extended role of consumers has stressed a need to deepen the proximity between the company and its' customers. This is well illustrated by the distinguishing features and fast growth of crowdsourcing and -funding industries. What comes to crowdfunding, stock-ownership based platforms are the norm in this novel form of funding, but the dominant platform ownership models fail to harness the full potential of individuals' will to participate and cooperate. Therefore, the industry is still looking for efficient and sustainable model that would alleviate these problems and challenges. In addition, scientific discussion haven't considered the role of company form in organizing crowdfunding platforms. Consequently, there is a clear need to set up and spur discussion on the role and implications of co-operative company form in crowdfunding. We propose a cooperative structure for crowdfunding as a solution to these and number of other problems encountered in the industry. Accordingly, the purpose of the article is to illustrate the relevance of company form in organizing crowdfunding. This is achieved by considering the implications of co-operative form on economic and non-economic features of crowdfunding. In addition, as co-operatives are based on cooperation between individuals, we consider the potential of co-operative form in terms of frequency of interaction of the member-owners. Concludingly, we put forward propositions that illustrate the relevance of company form in organizing crowdfunding.

Keywords: crowdfunding, co-operatives, platform cooperativism

Entrepreneurial Policy for Tribal Societies: Case Study of Mizo Entrepreneurs In India

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Abstract: Entrepreneurship variously defined as innovation, leadership, management, coordination; is essentially about 'risk taking'. Social sciences have looked into different influences on entrepreneurial behaviour, ranging from personality traits to institutional environment to social and cultural factors. Coming specifically to entrepreneurs in tribal societies, they have typically been associated with lack of risk appetite and business acumen. The argument goes that they discount the future highly and their 'tribal mind-set' takes them away from saving and investment and towards consumption, dampening their entrepreneurial aptitude. Hence, policy makers opine that though indigenously grown entrepreneurship is the best route for sustainable development of these societies, it has to be suitably supported by government sops and assistance from outside entrepreneurs. Through my field study on entrepreneurs belonging to the Mizo tribe in the north eastern state of Mizoram, India; I question this popular discourse and come out with the conclusion that the Mizos instead have a significant pro enterprise history as well as attitude. My study underlines the fact that this feature of the Mizo tribal society which could have been an important asset for cultivating entrepreneurship among these people, has not only been largely ignored rather has been dampened by government intervention. Through questionnaire analysis and basic econometric tools, I have been able to establish the counterproductive impact of government policies on the entrepreneurial attitude and performance of these people. I argue for more proactive steps like providing professional education and training to cultivate entrepreneurial skills among these people, rather than offering artificial sops and subsidies which seem to be inducing complacency. My field study corroborated with quantitative analysis emphasizes the role of socio cultural context in policy making and provides an interesting insight into the working of tribal economies.

Keywords: tribal, Mizo entrepreneurship, institutions, socio- cultural context, innovation in entrepreneurial policy

Parenting of the Micro Enterprise Founders; Does the Parental Approach Make any Difference in the Choice of a Family Business Successor?

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Abstract: According to several studies and authors all over the world (see e.g. Ward 1987; Koiranen 2002), there are difficulties in the search for a family business successor within a family. The next generation of SME founders may not see the running of the family business to be attractive enough. Some families have offspring willing to take over the business. If there are signs of a different parental approach towards a successor and non-successor, this qualitative study focuses on the issue within four case family firms. How have the founders as parents approached their offspring during their childhood and early adulthood? In particular, the ones taking over the firm are under investigation in this ongoing study. The parents of the family in business were interviewed, as well. The study aims to find a theoretical match by using empirical qualitative interviews in which a varying amount of siblings were informants for the study. Baumrind's (1978) parenting typology was used to reflect empirical evidence amongst three family business cases. The contribution of the study refers to the possibility to identify potential successors within a family by analyzing the experiences of being a family member under the command of the founder of the family business. The practitioners may help families in business in their search for a motivated successor and ownership transfer. The family business scholars are encouraged to utilize educational theories when studying families in business. This study will open up the path for using an educational, family study approach.

Keywords: family business, succession, parental style, childhood experiences

Organizational Network Analysis of the Interplay Between Business Model Components

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Abstract: The paper has both conceptual and empirical nature. The former is manifested in an attempt at applying the network approach to the analysis of interrelationship between components of a business model in companies involved in the European research project – Reinvent, which concerns the analysis of busi-

ness models in small and medium-sized enterprises of the creative sector. Thus it is worth conducting an analysis of the relationships, influence, and importance of particular components of business models, applying basic prominence measures. In order to accomplish its goals and provide answers to the research questions posed in this paper, both visualization (graphic presentation of the relationship network between business model components) and quantitative measures allowing to measure prominence (closeness and centrality) of business model components have been used.

Keywords: organizational network analysis, ONA, social network analysis, SNA, business model, components

The Study of Successful Entrepreneurs (The Case of a Province in Iran)

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Abstract: The purpose of this study is to identify the effective factors on the success of entrepreneurs, and its impact on the development of the production section. Although, various researches have already been conducted on this issue, but there have been no vital parameters with specific degree of effectiveness found on a network of factors so far. In this research, the population is all of the production sector in Semnan Province. By using Delphi method and commends of the experts' eight main Indicators selected from GEM were recognized. Then, a sample size of 100 active firms was determined. Then, Structural equation modeling (SEM) was used to study the effect of independent variables of entrepreneurial activities and entrepreneurial perceptions between 2012 until 2015. The Analytical Hierarchy Process (AHP) has been employed to calculate the success potential of each entrepreneurs. The finding indicates that the factors to selection best alternatives of GEM Indices from eight critical factors among the most important factors in this category are "Entrepreneurial Intention, Early-Stage Entrepreneur. The preference orders are; Entrepreneurial Intention, Early Stage Entrepreneurship, New Business, Fear of Failure, Nascent Business, Perceived Capability, Established Entrepreneurship, Perceived Opportunity.

Keywords: entrepreneurship, entrepreneurial development, successful entrepreneur, entrepreneurial activities

Business Proposition Development in new Ventures as a Process of Initiation, Design, Engineering and Realization (IDER)

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Abstract: This paper describes the development of the business proposition of high tech new ventures as a design and innovation process. We use the innovation model of Initiation, Design, Engineering and Realization (IDER) to portray the IDER activities that multiple new ventures go through in differing degrees. We conducted two rounds of interviews with an interval of four years with 10 high tech new ventures. The main question in the first interview was "How and by what activities did the business proposition evolve?" The second interview focused on how the business proposition progressed during the following four years. The analyses of the interviews focused on the following question: Through what kind of combinations of Initiation, Design, Engineering, and Realization activities does the business proposition of a new high-tech venture develop over time? Based on our analyses, we create IDER visualizations of all ten new ventures and describe seven themes that are illustrative when the IDER-logic is applied to the process of new venture creation. Through the IDER-model we propose a new (visual) vocabulary to better understand the new high-tech venture creation process, and its opportunities and challenges.

Keywords: new venture creation, entrepreneurship, process, innovation, IDER

Towards an Emerging Paradigm: Is Social Entrepreneurship an Insight into Contemporary Society?

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Abstract: From historical till contemporary era, overwhelming changes happening within varieties of contextual factors (namely, society, economy, culture, environment and education) challenge the field of research in entrepreneurship. "Old" nature with "mold and cliché" of entrepreneurship is thus moving to a new direction by embracing community and related social value attributed to its con-

cern. Defined as "social change agents", the ultimate goal of social entrepreneurs is to promote "social justice" as a whole by "dealing with social needs", blurring the edges between "society and enterprises" among "public, private and nonprofit sectors". With a critical thinking of current literature related to social entrepreneurship, series of concepts are emerging and gaining interests from both theoretical and practical perspectives, such as ethics, morality, ethical suspect behaviour, (corporate) social responsibility (CSR), social justice, philanthropy, charity, altruism, virtuous, sustainability, etc. By borrowing social constructivism as our theoretical lens, we plan to meet our research objectives through gathering findings based on the following questions: theoretically, why is it important to analyse social entrepreneurship? What are the inner-relationships among those emerging concepts in the horizon of social entrepreneurship research? What are the interrelationships between those concepts and social entrepreneurship? Although this study is still in a preliminary stage, it can to some extent lead more worthwhile explorations further such as theoretical and practical argumentations. Additionally, it is also significant to envision practically for the future research what contributions our research can make for improving social entrepreneurship education and how to develop the relevant concepts into education and training programs. By collecting the literature material as covering recent 10 years (from 2005 to 2015), 37 articles have been targeted which are necessary for us to conduct a meta-analysis of relevant socially-constructed discourses. Considering those corresponding concepts, social entrepreneurship is giving inspiring ideas for traditional entrepreneurship research and vitalizing it towards a more developing trend. And more relevant concepts will evolve in social entrepreneurship research; they can be involved into consideration and debate. It is also necessarily important to realize the way how to educate students and how to train entrepreneurs for the social changes in our contemporary era. ATLAS.ti will be utilized as a support tool.

Keywords: social entrepreneurship, ethics and morality, CSR (corporate social responsibility), sustainability, social entrepreneurship education

Commercialisation Strategies: Choosing the Right Route to Commercialise Your Research Results

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Abstract: The emergence of knowledge and innovation-based economies means that much focus is being put on the commercialisation of intellectual property

originating from publicly funded research. The commercialisation of research results is a complex process building on excellent knowledge translated into market ready products and services. An essential stage of the commercialisation process consists in the selection of the right path to enter the market - a critical strategic decision that determines the commercial success of an innovation. The paper tackles the problem of innovation commercialisation. It addresses questions about decision criteria and factors influencing the selection of different innovation commercialisation routes. Although there are essentially two main routes to the commercialisation of research results, i.e. licensing to existing companies or spin-off venture creation, other paths to enter the market, like services, and direct and indirect sales are also considered by the authors, because they are not a rare phenomenon. The paper is based on a literature review and the empirical study of commercialisation strategies applied at universities and research institutes worldwide, particularly on the authors' experience gained in the course of the "Innovative Systems of Technical Support for Sustainable Development of Economy" Strategic Programme.

Keywords: commercialisation, licensing, spin-off, sale, services

Incorporating Design Thinking in Entrepreneurship Education

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Abstract: One of the approaches that is currently being tested by several universities to improve entrepreneurial education is the use of design thinking as a teaching methodology. Even though emerging literature attests to the effectiveness of design thinking as a teaching methodology, no well-defined, comprehensive conceptual model has been developed to date, identifying components likely to be associated with effective entrepreneurial learning when design thinking is used to develop entrepreneurial projects. Therefore, there is a need to develop a conceptual (theoretical) model in order to guide researchers in evaluating the utility of design thinking in entrepreneurship education as a method of teaching and to guide them in designing course content and delivery. We conducted in-depth interviews of educators and students from four institutions from Europe and the US that are on the cutting edge of integrating design thinking into entrepreneurship courses. The purpose of the interviews was to explore successful entrepreneurial projects where design thinking was used as a teaching or project development methodology and to distill from the interviews, with a carefully-designed coding

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and analysis procedure, the components which contribute to the success of the project. To analyze the data, we employed both a deductive approach and an inductive thematic analysis approach. The insights of educators and students were used to construct a "conceptual model of design thinking-based entrepreneurship education" that is comprised of nine components. The environmental set of components includes mentoring, tools and spaces, and external recognition. The process components include interdisciplinarity, fieldwork, experimentation, and usercentered research. As the basis for effective learning experience, we propose the meaningfulness of the project and continuity as a measure of effectiveness of the course. It is proposed that, in order to achieve continuity as a measure of effectiveness, all other eight components should be present and sufficient care should be taken in course design and deployment to support their development and use in the learning process. Our research bridges the literature gap between the disciplines of design thinking and entrepreneurial education. This integration promotes greater understanding on how design thinking improves entrepreneurship pedagogy which, in turn, could also lead to improvements in student learning particularly in competencies, such as effective communication, networking, and innovative thinking that are necessary in the twenty-first century.

Keywords: entrepreneurship education, design thinking, constructivist pedagogy, competencies, conceptual model

PhD Papers

Stimulating Innovative Entrepreneurship: How to Apply US Experience for Azerbaijan

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Abstract: Many nations strongly reliant on natural resources are taking measures to diversify their economy. One of the opportunities for developing non-oil sector is stimulating and supporting innovative entrepreneurship. Emerging economies in the post soviet region including Azerbaijan view economic growth based on innovation as a tool for ensuring sustainable growth in the 21st century. As these nations develop models for stimulating innovative entrepreneurship, it is important to study the experience of the successful startup ecosystems. This paper discusses the factors behind the success of world's highest ranked startup ecosystems, with special emphasis on the startup ecosystem in the US. It analysis the relationship between such elements as availability of talent pool, access to forms of risk finance such as angel investments and venture capital firms, existence of legal framework that protects the rights of entrepreneurs as well as investors and regulates relationships between them. The paper also discusses the importance of catalysts of innovative entrepreneurship - incubators and accelerators and their importance in increasing the innovative potential of startup ecosystems. final section of the paper discusses the emerging startup ecosystem in Azerbaijan and analyses the newly established incubators and accelerators in Baku, capital of Azerbaijan. The paper concludes with recommendations on stimulating innovation based entrepreneurship in Azerbaijan. A strategy on increasing the role of universities and research centres in this process is discussed.

Keywords: innovation, start-up, ecosystem, entrepreneurship

Acquiring Legitimacy in Institutional Entrepreneurship: A Case for Emerging Economies

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Abstract: This study evaluates the extant literature on the acquisition of legitimacy of an institutional entrepreneurial activity in emerging economies. Emerging economies have less developed governmental and regulatory frameworks and, at a more basic level, less developed regulatory and enforcement environments. Consequently, market regulation, corporate governance, transparency, accounting standards, and intellectual property protection are often less robust than in

more advanced economies. Moreover, in emerging economies, where there is less contestation about any given institutional structure, changes in institutional structures are likely to be more frequent than when compared with an advanced economy. Under these conditions, there is an increased possibility of an individual or an organization having the authority or economic resources to change the rules of the game; the participants might reap the benefits of such an opportunity, a phenomenon referred to as institutional entrepreneurship. Such change in the 'rules-of-the-game' may be beneficial to wider society and lead to productive activity, or in some cases become unproductive and lead to opportunistic activity. The existing literature on institutional entrepreneurship in emerging economies offers some understanding into how such individuals or organizations acquire power to influence change. However, the mechanisms that enable these institutional innovations to become accepted either by key stakeholders or the general society within the specific context of emerging economies remain unclear and call for further investigation. For novel institutional arrangements to become accepted implies that they have acquired legitimacy. Using the context of Dubai, in the United Arab Emirates, this paper offers an integrating conceptual framework that opens up our understanding of the process of gaining legitimacy for institutional entrepreneurship with that particular focus on emerging economies. Following, it proposes methodological considerations for such research undertaking in emerging economies.

Keywords: institutional entrepreneurship, legitimacy, emerging economies

The Links Between Innovation, Strategy and Internationalization Processes: A Comprehensive Literature Review

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Abstract: Globalization of the economy has revived the interest on the theme of internationalization of companies. There may be several motives for a company to expand its markets, but whatever they are, the success of the process depends on specific and characteristic assets that the company possesses and on their capacity to provide competitive muscle. Among other strategic choices, the development of innovation capabilities is a possible path to provide the firm with knowledge and organizational assets that confer it a competitive edge. Knowledge assets are increasingly important in an interconnected and open world market, where traditional localized competitive factors, such as low labour costs, are rap-

idly losing appeal as drivers of sustainable and continued value creation. In a highly competitive international market, innovation and internationalization seem to be themes that are intrinsically related to each other, in the sense that knowledge and innovation capabilities seem to be a necessary prerequisite to an internationalization process. However, per se, innovation capabilities, and the assets behind it, may not be enough to a successful endeavour. In the absence of privileged, localized knowledge of the national market, strategic considerations are of paramount importance to the internationalization process. Strategic actions are important, not only at the planning stage but also at the implementation stage. It is argued in this paper that these aspects, knowledge, innovation and strategy, are crucial to understand actual internationalization processes and dynamics. This paper intends to examine the above concepts and the links between these factors and their effects on business performance and competitiveness and comprehend internationalization processes. It provides a comprehensive review on the literature regarding the possible connections between the three concepts and it identifies the main ideas and variables that have been suggested and are being regarded. It provides a useful synthesis and it suggests future research paths.

Keywords: innovation, strategy, internationalization, strategy implementation, review

User Communities and the "Dark Energy" of Open Innovation

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Abstract: Spending on R&D in the United Kingdom is in decline. A report by the University of Sheffield stated that research and development investment in the UK is now less than 2% of GDP, mainly explained by cost reductions by firms (Jones, 2013). Yet, innovation is needed more than ever for firms to remain competitive. What can be done to redress the balance? The idea of tapping into the "dark energy" (Anderson, 2012, p. 128) (also known as "the cognitive surplus" (Shirky, 2011, pp. 9-10)) of a "community of users" to enhance a product is as old as the Whole Earth Catalog, which was first published in 1968. This method can also be used to invent new products. This paper will discuss this form of "open innovation" in three distinct contexts: first, in the creation and enhancement of Stewart Brand's "Whole Earth Catalog" between 1968 and 1971, second, by the Chinese mobile phone manufacturer Xiaomi in the development of its MIUI software, and third, in an Internet of Things design competition hosted by the electronics engineering community, element14.com, in collaboration with Texas In-

struments, Cisco, and the Eclipse Foundation. Using these examples, the paper argues that the "dark energy" proffered by user communities is a key resource which can be effectively deployed as part of firms' innovation models. The paper also argues that the arrival of low cost tools such as the Raspberry Pi and the 3D printer, as well as access to so-called "hackerspaces", means that online communities can do more than just generate software, ideas and designs, they can now produce working prototypes of physical products. The paper finally argues that using the context of design challenges can provide intensive focus and direction for innovative activity.

Keywords: open innovation, online communities, user-led innovation, user communities, maker movement

SWOT Analysis and Evaluation of a Driverless Carsharing Model

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Abstract: Due to social changes, such as urbanization and an increased desire for door-to-door-mobility, combined with economic factors, such as rising gas prices and a lower investment in infrastructure, mobility is subject to change in the future. This change requires an adaptation of existing transport modes and force established companies within the mobility and transport sector, as well as startups to respond to these trends with an innovative concept. With technological improvements on autonomous cars, a future driverless carsharing model could respond to the above described trends. The topic is embedded in the discussion for a sustainable and customer-oriented mobility system. Based on existing mobility studies and future mega trends, it is estimated that a driverless carsharing model as an on-demand system becomes of great interest in urban areas in Germany, given the premises that the model can be realized in an ecological and economic balance. While carsharing can generally be done in three different models (free-floating model, permanent station model, private-to-private model) the question shall be answered if a prospective model with driverless cars can meet the market needs. Such a model could be operated through a public or private transport company that is strongly interconnected with existing transport modes and provide customers with a thorough mobility chain. Autonomous cars have a significant advantage in comparison to existing transport modes. The high level of comfort in comparison to existing public transport systems and motorized individual traffic, the high flexibility in comparison to bus or train timetables, the avoidance of the search for a parking lot when using the private car and many other factors emphasize the need for this new mobility system. The article seeks to further outline the requirements from a customer perspective towards an innovative, value-adding or even substitute transportation mode. The intention of this article is to discuss strengths, opportunities, threats and weaknesses of such a carsharing model in the context of a SWOT analysis and on the basis of secondary sources on both driverless cars and carsharing. The aim is to compile this information, enrich it with further statistics and draw conclusions.

Keywords: self-driving cars, carsharing, innovation, future mobility, transport mode

Conflict, Coincidence and Emerging Interactions as Logics of Innovation

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Abstract: This paper seeks out to construct a model of innovation based on research conducted in 3 different entrepreneurial contexts. The model attempts to describe how innovation is emerging in the everyday interactions of people involved in the projects, through conversations in meetings, on social media and in workshops. Based on the presented model, the author will discuss how logics of innovation can be seen in a new perspective in the light of Sarasvathys theory of Effectuation. The research methodology is based on Participatory Innovation (Buur & Matthews 2008) with a strong emphasis on involving many stakeholders in the process of innovation, a high level of "doing" through Action Research based activities. And on reflection in situ with the involved stakeholders. The author takes on an Autoethnographical approach (Anderson 2006) to investigate from the perspective of his own involvement in the 3 different projects, how the process of innovation emerge in the interactions of the people involved, including the researcher himself.

Keywords: participatory innovation, complexity, entrepreneurship, auto ethnography

Trust Formation and Cross-Cultural Challenges in Developing Innovation Related Multi-Partnership Project: Preliminary Findings of the Initial Stage of Project Designing

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Abstract: This paper discusses and examines initial trust formation and crosscultural challenges when building collaboration towards and between partners in innovation-related multi-partner project design and planning between oriental and Finnish cultures. The paper focuses on the role of trust and challenges in the initiating stage presented by geographical distance and cultural differences. Ecommunication in interaction and negotiations are dealt with. Trust is seen as a potential unifying resource in relationships and looked from the view of intangible assets, as intellectual capital. The aim of the paper is to provide and increase understanding of both initial trust formation and cultural perspectives in the early stage of building relationships and network for innovation-related project involving knowledge holder institutions and other entrepreneurs. While a few studies of partnership trust development have been published lately in inter-organizational context (Cook & Schilke, 2013; Sloan & Oliver, 2013), this paper concentrates on the early stage (initial) trust formation and cross-cultural issues (Fulmer & Gelfand, 2012) and challenges that have been scarcely examined empirically so far. The paper presents some preliminary empirical findings based on data from different actors involved in the project. Auto ethnography method is used as well as written material. The question is how initial trust develops towards and between multiple partners involving education institutions and aiming to collaborate with entrepreneurs, such as care business and digital solutions providers. Awareness of process development and relational management skills are essential for advancement of innovative initiatives and formation in new international partnerships. Service providers and educational institutions need to develop trust with and for cross-cultural competences and understanding of customer value in order to strengthen preparedness for new advancements within international innovation project concept. New opportunities for entrepreneurship development internationally may arise unexpectedly when reciprocal trust and trustworthiness have been recognized and pursued.

Keywords: trust, cross-cultural partnerships, process development, relational leadership, interorganizational relationships, reciprocal trust, qualitative study, auto ethnography, innovation

Election of Board Members in Cooperatives: A Review on Cooperative Governance vis-à-vis Corporate Governance

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Abstract: A number of academic studies have been done on the governing mechanisms of firms. They address the significance of the board of directors. The extant literature has focused on structural factors and performance of the board. Outside directors, board members' education and female representation have been considered essential board characteristics. Consequently the election of board members has become an object of interest. A successful election process is assumed to generate a competent board. Many of the studies discuss the topic in the context of public limited companies. However, cooperative seldom emerge in these studies. This has both academic and practical consequences: the understanding on the cooperative governance does not accumulate and practitioners do not have in-depth knowledge available in order to develop their cooperatives. What make cooperatives different from other firms are a broad member base, customer, worker, and entrepreneur relationships to the cooperative and differences in the governing bodies. These features have special implications on the governances of cooperatives. The purpose of this paper is to gather existing academic knowledge on cooperative governance and to produce an overall review on the governance mechanisms in cooperatives with an emphasis on the election of board members. The goal is to figure out what we know about the governance and the election of board members in cooperatives. The review sheds new light on the academic discussion on cooperative boards, their composition and processes as well as their election. The novelty of the work lies in the diverse approach of cooperative governance. The study shows knowledge gaps in the extant literature of cooperatives and makes suggestions on future research. It builds a framework for future studies in the field of the governance of producer, consumer and worker cooperatives as well as credit unions. The method of the study is the integrative literature review.

Keywords: board, member, governance, cooperative, director, election

Teachers' Experiences on Student Enterprises

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Abstract: Student enterprises could be seen as a possibility to settle and break free from the disagreement between practical attitude and a more academic approach to entrepreneurship education (Jones 2006; Neck & Greene 2011; Hägg & Peltonen 2014). At best student enterprises could be learning environments incorporating working-life and entrepreneurial activities inside or near school organizations (Hietanen & Kesälahti 2015). Student co-operatives (also called school co-operatives) offer one functional student enterprise -model and communal learning environment where abilities that support entrepreneurship can be developed (Eronen 2012). Also for example JA startup companies (Junior Achievement network) have now been successfully developed from young kids to the higher level teaching in Finland and elsewhere in Europe. Studying and being an entrepreneur together in a student co-operative give support and encouragement but bring also challenges related to common decision-making and organization (Troberg 2015; Troberg & Hytinkoski 2015). But the students are not the only ones challenged when these student enterprises are used as a method of teaching. Teachers and principals of Finnish upper secondary schools, vocational schools and universities of applied sciences were interviewed for this study that concentrates on the teachers' experiences on student enterprises at different Finnish school levels. The results of the study showed that co-operative entrepreneurship education is a suitable model when new active, entrepreneurial, cooperative initiative learning and also task-based experiences are produced for the students of upper secondary schools, universities of applied sciences and possibly also in vocational schools. But these activities have to be integrated as a part of the everyday teaching and the other possible school goals. The method needs a combination of courage to develop new teaching models but also patience to use traditional tasks and models that are already working. The early results of the study were surprisingly positive, also with JA startup companies, but at the same time there are many challenges to overcome. At best student enterprises could be used as a vehicle to produce new curriculum-based - community-based and more active learning at different school levels but this scenario requires a planning period, common goals, at least a group of interested teachers and a principal, student (family) interests and enough education and know-how for all the stakeholders.

Keywords: student enterprises, student co-operatives, JA -student companies, teachers

Towards Entrepreneurial Motivation: The Self-Determination Theory Approach

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Abstract: Entrepreneurship as primarily driven by human agency. Hence, human motivation plays an important role in who becomes an entrepreneur even at the early stage of business gestation. The paper proposes a process theory grounded in theoretical frameworks of the human Self-Determination Theory (SDT) and the Ajzen theory of planned behaviour – a model of how an individual's entrepreneurial intent is shaped by their exposure to parental entrepreneurial activity fully mediated through development of the internally regulated types of motivations as indicative of their autonomous causality orientation. The model is then validated through multiple regression correlational analysis as well as individual path analysis via a series of hierarchical multiple regressions.

Keywords: entrepreneurial motivation, aspiring entrepreneur, family socialization, self-determination theory, intrinsic motivation

Determining the Importance of Personality Indicators Independent Entrepreneurs Using the Analytical Hierarchy Process

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Abstract: This study intends to determine personality traits of independent entrepreneurs and ways of their identification. With respect to a variety of behavioral properties on the basis of literature and viewpoints of experts, six indices are selected. By conducting Group AHP, these traits are prioritized for creating a proper model creating entrepreneurship. For this, viewpoints of 9 successful independent entrepreneurs are evaluated. Then, by making paired comparison and going through group hierarchical analytical process, the selected indices are prioritized. The findings reveal a relative consistency between this research and similar studies. However, the indices in this paper are selected on the basis of cultural conditions in Iran. In all conducted studies, innovation, creativity and risk-taking are indispensable personality traits of independent entrepreneurship.

Keywords: entrepreneurs, personality traits, group analytical hierarchical process

Sustainable Business Models for Base of the Pyramid: The Role of Customer Participation and Cross-Sector Collaboration

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Abstract: Business models represent the main innovation focus for companies that aim to expand their markets at the Base of the Pyramid. So far, one of the most critical challenges Base of the Pyramid business models face is sustainability. Different literature streams advocate that in order to achieve economic, social and environmental sustainability while contributing to local development, collaborative and participatory approaches known as value co-creation are needed. Additionally, two groups of stakeholders, namely customers and non-business actors, are the most relevant for the sustainable value co-creation mechanisms in Base of the Pyramid markets. In this sense, the overarching aim of this doctoral thesis is to investigate how co-creation mechanisms with customers and crosssector actors affect the sustainability of business models at the Base of the Pyramid. The research process is guided by the theory of co-creation and borrows insights from several research streams, namely development cooperation and policy, sustainable business model and BOP innovation. The research design follows a deductive approach where hypotheses are formulated based on the review of the literature, case studies and expert interviews and tested through a large scale empirical study. This paper brings together insights from the aforementioned research streams and presents preliminary findings in the form of a conceptual framework based on literature review, expert interviews and case studies. Additionally, the design for the empirical testing of the framework through a large scale survey is described as research outlook.

Keywords: base of the pyramid, sustainability, business models, co-creation

Social Venturing and Co-Operative Entrepreneurship Business Model (SVCE-bm) for Growing MSMEs in Zambia

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Abstract: The majority of the Zambian population depend on agricultural industry for their economic livelihood. They own agricultural based micro small and medi-

um enterprises (MSMEs) including smallholder farms or co-operatives. Most of these MSMEs are unproductive and are unable to grow, thereby, failing to raise national food production and rural poverty. Scholars and business practitioners have converged on the notion that business models are used to create, deliver and capture economic and social value and we believe good business models would bring about rural economic development as the case is with new generation co-operative business models (NGC-bm). The study objective is to design a generic SVCE-bm for growing MSME in Zambia. The question is: How can SVCE-bm grow MSME and make them competitive on Zambian market, with special interest in supply chain integration policies of farming and agribusiness? A qualitative study using multiple case study design was used. Open ended and semistructured questions were administered. Individual and group interviews were used. Attending management meetings and feedback from conference and peer presentations. Secondary data from published company information was used. The findings from the three cases (Effectiveness of co-operatives for agribusiness, Good performing enterprise with SVCE-bm and Similarities and differences between NGC-bm and SVCE-bm) helped in designing SVCE-bm. The SVCE-bm needs further piloting and fine-tuning the elements; the model requires supportive policy and regulatory framework; It is be based on appreciative enquiry, Goldratt's theory of constraints - leveraging on existing resources, social capital and tacit knowledge.

Keywords: social venturing and co-operative entrepreneurship business model, micro small & medium enterprise, smallholder farms, new generation co-operative business model, non-governmental organization business model, social venturing business model, investor owned firm business model, state owned enterprise business model, traditional co-operative business model

Stand out and fit in: Entrepreneurship Emergence in China During Economic Transition

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Abstract: This study explores the processes of entrepreneurship emergence by studying a set of events encountered by prospective entrepreneurs. Set within the context of Chinese cashmere industry during the period of central-planned to market-oriented economy transition, lived experiences of focal entrepreneurs from six case stories were investigated. The practice theory, with its central focus on not only the situated doing of work, but also on shared practical understanding and actors' positions within "fields" structure, has informed this study. In an inductive and open-end approach, this article develops the idea that the process of

entrepreneurship emergence is governed by two seemingly contradictory dynamics, which are referred as "stand out' and "fit in". In contrast with existing studies, this article not only attends to the earliest moments of entrepreneurship emergence by highlighting the role of immediate contextual conditions, but also places the prospective entrepreneurs, who take the actual entrepreneurial practices, in broad structural contexts. Hence, this study contributes to emergent literature on entrepreneurial processes by providing a holistic view of how, when and where entrepreneurial practices may emerge at interaction of prospective entrepreneurs and multilevel dynamic contexts.

Keywords: entrepreneurship emergence, economic transition, practice theory, case study, stand out and fit in, process

Work In Progress Papers

Innovative Behaviour and Employee Engagement: A Case Study in a Family Business

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Abstract: The main research objective of this study was the innovative behaviour description over the employee participation through the observation of the firm innovation process. The research focused on a small family business (retail trade), analysing the employee engagement in service design tasks. The methodology used was grounded theory and case study. The results showed that the characteristic of a family business leads to a singular form of observation of innovative behaviour. Therefore, innovative behaviour is highly influenced by employee engagement. Finally, the methodology implemented allows to be replicated in other business environments as larger family businesses, small and medium-size service firms or high technology firms.

Keywords: innovative behaviour, employee engagement, service firms, innovation

HEIs and Temporality in Entrepreneurship

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Abstract: This article aims to contribute to research that examines the relationship between Higher Education Institutions (HEIs) and start-ups through their involvement in incubators. We draw attention to how HEIs have a vital role to play in developing students' temporal awareness. Developing temporal awareness is one of the key challenges for universities and is still a relatively undefined concept. Previous work that describes the nature of entrepreneurship within a multi-time-period framework provides a conceptual grounding for exploring the temporal dynamics of the entrepreneurial process. In fact, there is literature that suggests that the futurity that entrepreneurship must confront introduces the possibility that the entrepreneur may, by his own creative actions, construct the future as he or she wishes it to be. We surmise that creating and developing new venture ideas within HEI incubators provides an opportunity to develop temporal

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awareness through temporal imagination and the projection of probable and possible future trajectories of action. We explore these temporal practices using material gathered through a longitudinal study of four student entrepreneurs in a university incubator. The case studies were constructed from real time and retrospective data, typically by interviewing the lead potential entrepreneur. The study confirmed that HEI's are key institutions for cultivating students' temporal imagination. This has practical relevance for university-based entrepreneurship. If HEIs are to have more prominent roles in entrepreneurship education, new interventions are required to generate and develop venture ideas.

Keywords: HEIs, temporal imagination, incubators, futurity

Testing Willingness and Ability as Distinguishing Factors Between Family and Non-Family Firms: Contextualizing the Relationship Between Entrepreneurial Self-Efficacy and Business Performance

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Abstract: The aim of this paper is to examine whether family businesses are different than non-family businesses regarding entrepreneurial self-efficacy and performance introducing a framework by De Massis et al. (2014). This framework claims that firms with expressed ability and willingness (and therefore family-oriented particularistic behavior) are different from firms without those two characteristics. We tested if the presence of ability and willingness affect the entrepreneur's self-efficacy - firm performance relationship, which explains us more about the differentiation between family and non-family firms and about the contextual (in)dependency of the ESE- business performance relationship. Results show that the presence of willingness and ability in firms distinguishes family and non-family firms regarding entrepreneurial self-efficacy and also business performance. Our results indicate that family firms financially outperform non-family firms.

Keywords: family business, family firm definition, performance, willingness, ability

Entrepreneurship: Opportunity for Young Generation

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Abstract: The aim of this contribution is to evaluate the situation among the young people in the field of entrepreneurship. Lot of European countries have the problem of unemployed young people, especially students and graduates. Thus, there is potential for young people to find self-realization in a form of entrepreneurs. It is important to monitor the situation among the young generation – their motivation and expectation as the future entrepreneurs. The research uses the two sources of the data. Primary source is own questionnaire survey conducted among the students of Masaryk university. It is inspired by the survey of Eurostat analysing motivation to become an entrepreneur, financial possibilities, and the expected problems of future entrepreneurs. Secondary data sources are the survey conducted by abovementioned Eurostat. They are used as source for identification of trends and differences among the European countries. Primary data are used to analyse the situation among the students at Masaryk University. Differences arising from secondary data could be connected with the entrepreneurship environment or generally with the economic situation of analysed country. According to primary data of our own survey among students of Masaryk University. there are comparable results with the secondary data for Czech Republic in the motivation, but the different results for financing or expected problems. According to results from analysis of secondary and primary data, there are students young generation in general - who are motivated to become entrepreneurs. Providing the appropriate support for them can be seen as the part of solution of the problem with unemployment of young people. The comparison of the surveys provides wider overview of the analysed topic and own survey identifies opportunity to support students of the Masaryk University specifically.

Keywords: Nascent Enterprises, entrepreneurship, motivation and problems of Nascent Enterprises, entrepreneur's potential of students

An Evaluation of Shared Entrepreneurship and Organisational Structures to Increase the Innovative Capacity

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Abstract: The recent debate about critical performativity leads to an increasing attention of post hierarchical approaches encouraging change in the organisational life. However, various authors claim that relevant theories of this field are under researched. Under consideration of an abductive research approach, the proposed project aims to provide new structural approaches for an improvement of EU companies' competitiveness and profitability by increasing their innovative capacity. Previous research demonstrates that different structures within organisations influence managerial processes like the distribution of authority or decision making power. An analysis of the literature furthermore indicates that different organisational structures have a direct impact on the innovative capacity and therefore companies' competitiveness. In this context, the recent ideas of shared entrepreneurship and improvisation in organisations that are related to post hierarchical approaches will be examined to get beneficial insights on their relationship to managerial processes and the innovative capacity. We raise the hypothesis that these approaches have a positive impact on managerial processes, the commitment and motivation of employees and therefore the innovative capacity. A collection of primary data by using interviews and surveys in an international context will allow good insights on how companies in the EU experience those issues. The expected results of this research project should enhance our general understanding of post hierarchical approaches and related theories to recognise the importance of organisational structure for companies' innovative capacity. Based on the findings of this project, recommendations can be made about how organisational structures could be adapted to improve the effectiveness of managerial processes. This would have a positive impact on employees' possibilities to participate with their creativity and on the innovative capacity and therefore on the competitiveness and profitability of EU companies. It would furthermore expose areas for future research across theories that are related to post hierarchical approaches.

Keywords: management innovation, innovation, organizational studies, shared entrepreneurship, critical performativity, post-hierarchical

Abstracts Only

Innovative Spirit/5EuroStartUp: Theoretical and Practical Modules to Foster Innovation and Entrepreneurship

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Abstract: "Innovative spirit" is a programme at the University of Munich (LMU München) teaching a mindset and (personal) skills for innovation and entrepreneurship. It consist of lectures, workshops, competitions, annual events, consulting services and offers practical experience. Participation is open for all 52.000 LMU-students, postgraduates and partly for researchers. Modules of the programme were brought to other universities. A series of ten lectures deals with entrepreneurial topics, e.g. idea-development, business planning, financing, social entrepreneurship, social innovation, innovative thinking & acting. During two twoday-workshops students try various creative tools like Design Thinking to generate ideas and develop them to business plans (workshop:"Idea Development"); they work out project schedules to realise their (business) ideas and learn skills needed to run those projects successfully (workshop: "Personal Skills"). A student contest ("5 Euro StartUp") shows how to start a business with little money. It combines 4 weeks theoretical training with 8 weeks entrepreneurial practice. In a workshop students develop ideas and build teams, followed by crash courses in project management, finance, marketing, law and communication. Afterwards the teams start a real business, accompanied by young entrepreneurs. Short business plans and stage pitches are judged by a jury. Every year teams use the contest as a starting point to found a perennial business, frequently in the field of social entrepreneurship. Consulting services provide information and an appropriate network for students and researchers who want to realise their business ideas or (social) projects. Various events foster knowledge transfer between the areas of science, society and economy. They provide best practice examples and support (scientific) communication of (social) innovation and entrepreneurship towards a broad public. The field "social innovation" serves as an interface between scientists and players of civil society. In 2015 the project team was among 120 international experts invited to discuss with Federal Chancellor Dr. Angela Merkel "Innovation and Society" at the two-day International German Forum.

Keywords: entrepreneurship, innovation, social, teaching, practice

The Role of European Networks in the Development and Promotion of Entrepreneurship in Europe and Among Higher Education Institutions: The Case of SPACE Network

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Abstract: Higher Education Institutions (HEI) are more and more facing several challenges such as the need to create entrepreneurial mind-sets, to stimulate business creation and generate and exploit new ideas. In order to cope with these challenges, many HEI have developed different and innovative approaches such as new strategies for teaching, relating with business and on how to internationalise. Internationalisation strategies are diverse and cover a wide range of possibilities. According to the EU Commission it can comprise students and staff mobility, the curriculum and digital learning and the strategic cooperation and capacity building. The importance of this international perspective is stated by the HEInnovate (http://ec.europa.eu/education/tools/heinnovate en.htm) when they say that this has been "identified as one of the characteristics of an "entrepreneurial higher education institution". And they add that "It is not possible for a higher education institution to be entrepreneurial without being international, but the HEI can be international without being entrepreneurial, innovative" (HEInnovate). Networks of higher education institutions can be a possible solution for HEI to start and accomplish their internationalization strategy. In fact, if we take a closer look into one of these European networks and analyze their activities, we will realize that belonging to one of them (or to more) is a good solution. In this communication we will set the context of the need to belong to a European network as it contributes to the promotion of entrepreneurship while making possible to achieve the goals related with internationalization of any higher education institution. We will particularize with the case of the SPACE network (www.spacenetwork.org).

Keywords: European networks, internationalization, entrepreneurship

Teaching Design Thinking to Novices

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Abstract: One problem with the Design Thinking models used in teaching is that they may unintentionally push designers towards solution thinking because of the way they have been developed, without explicitly incorporating the iterative learning steps that methods such as Lean Startup are built upon. While designers understand that the process is iterative, the need to iterate is hard for a novice designer to see automatically. Templates such as the Designing For Growth Fieldbook (Liedtka, Ogilvie and Brozenske, 2014) try to simplify the process used by Ideo and the Stanford Design School, but printing the process in a book locks students into a linear view and may include terms and tacit knowledge that they have not yet acquired. This work in progress reviews some of the Design Thinking tools available today from the perspective of user experience, both as a student and an instructor with an goal to create better tools for teaching, learning, and assessing Design Thinking in the classroom environment. We will evaluate tools such al(2014), Stanford Liedtka et the Design School model (http://dschool.stanford.edu/wp-content/uploads/2012/02/Participant-

Worksheet.pdf). the model from Buchanan(2015. http://catalystreview.net/2015/06/issue-14-re-thinking-policymaking-in-the-uk/), and latest iteration from the design (https://innovation.blogs.ku.dk/ideo-design-thinking/) The aim of this paper is to use design thinking to create a design brief for design thinking teaching materials and brainstorm some new prototypes for collaboration and capture of design work in a classroom setting that allows for more iterations, more empathy, and more catalyzing of shared ideas among students.

Keywords: design thinking, teaching and learning, user experience, empathy, lean startup, value creation

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Research Jotter

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