

**Abstracts of the Papers
Presented at the
4th International Conference on
Innovation and Entrepreneurship**

ICIE 2016

Hosted by
The Ted Rogers School of Management
Ryerson University
Toronto, Canada

28 - 29th April 2016

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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.

This Booklet of abstracts and other conference materials is provided to conference participants for use at the conference.

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Preface

These proceedings represent the work of researchers participating in the 4th International Conference on Innovation and Entrepreneurship – ICIE 2016, which is being hosted by The Ted Rogers School of Management, Ryerson University, Toronto, Canada on the 28-29th April 2016.

The ICIE Conference constitutes a valuable platform for individuals to present their research findings, display their work in progress and discuss conceptual advances in many different branches of innovation and entrepreneurship in business and management. At the same time, it provides an important opportunity for researchers and managers to come together with peers, share knowledge and exchange ideas. ICIE builds on the now well established European Conference on Innovation and Entrepreneurship, and allows universities outside the European Boundaries the opportunity to host an academic conference on these important topics.

The keynote speakers at the conference are Wendy Cukier, Vice-President of Research and Innovation, at Ryerson University, who will address the topic “*No more Ivory Towers: The University of the 21st Century*” and Sean Wise, Professor of Entrepreneurship at the Ted Rogers School of Business Management who will share insights from his broadcast series, “*The Naked Entrepreneur*”. Additionally Deborah de Lange from the Ted Rogers School will lead a Panel on *Social Entrepreneurship*.

Following an initial submission of 176 abstracts that have undergone a double blind peer review process, 36 research papers, 11 PhD research papers, 1 Master research paper, 1 Non Academic paper and 1 work-in-progress paper are published in these Conference Proceedings, representing research results from the Australia, Bangladesh, Canada, China, Czech Republic, France, Ghana, India, Indonesia, Iran, Ireland, Italy, Japan, Kazakhstan, Kenya, Malaysia, Nigeria, Pakistan, Poland, Portugal, Romania, Russia, Saudi Arabia, South Africa, Taiwan, United Arab Emirates, UK, USA.

We hope that you have an enjoyable conference.

Dr Kenneth A. Grant
Conference Chair

and

Dr Sean Wise
Programme Chair
April 2016

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Biographies

Conference Chair



Dr Ken Grant is a professor of entrepreneurship and strategy in the Ted Rogers School of Business Management He is a visiting professor in the UK, Europe and Asia. His research interests include strategy, entrepreneurship, knowledge management and innovation, and pedagogy. He is an active coach and supporter of student entrepreneur activity across the university and is currently working to facilitate the development of entrepreneurship programs in China. Prior to joining Ryerson, Dr. Grant had an extensive career as a management consultant and industry executive in Canada and the UK, leading global consulting practices in several major firms. He holds a BA degree from the Open University, an MBA from the Schulich School of Business and a DBA from Henley Business School.

Programme Chair



Dr Sean Wise is a professor of entrepreneurship at the Ted Rogers School of Business Management at Ryerson, specializing in helping emerging and high growth potential organizations jump on the trajectory and turn a profit. The founder of six businesses, he is a prolific author and former advisor to the CBC TV Program, the Dragon's Den. His most recent venture, a TV series of entrepreneur interviews called the Naked Entrepreneur was launched on the Opra Winfrey network this year. Sean majored in engineering and economics at Carleton University has a law degree and MBA from the University of Ottawa and a Ph.D. from the Adam Smith Business School at the University of Glasgow.

Keynote Speaker



Dr Wendy Cukier is a Vice-President of Research and Innovation, leads Ryerson's strategy to grow research and to promote innovation and commercialization at the University. Previously, she was the Associate Dean of the Ted Rogers School of Management, Canada's largest business school. A leading researcher in her own right, her work focuses on entrepreneurship, innovation, and social change. She has written more than 200 papers on enabling technologies and innovation and is the co author of the bestseller "Innovation Nation: From Java to Jurassic Park". Dr. Cukier holds a PhD in management science a MBA in marketing and information and a MA in social and cultural history and honorary doctorates from Laval and Concordia.

Panelists



Daniel Bida is a Chartered Financial Analyst that spent the first 6 years of his career as an energy analyst before leaving that behind to pursue the development of community-owned biogas projects. Daniel is passionate about food, energy and the environment, and is motivated by opportunities to turn waste into value for these industries and for local communities.



Cara Clairman is President and CEO of Plug'n Drive, a non-profit that is accelerating the deployment of EVs to maximize their environmental and economic benefits. In just over three years, Cara has taken Plug'n Drive from an idea to a thriving non-profit, recognized as a leader in the EV space. Cara has more than 20 years of experience working in the environmental and sustainability fields, including 12 years working at Ontario Power Generation, initially as OPG's environmental lawyer and later in the role Vice President of Sustainable Development. As VP of SD, she was responsible for oversight of OPG's environmental performance and the development and implementation of OPG's sustainable development policies and programs. Prior to joining OPG, Cara spent five years practicing environmental law with the Torys law firm. She holds a Bachelor of Laws from Osgoode Hall and a Masters in Environmental Studies from York University, as well as an Honours Bachelor of Science degree from Queen's University. Cara is currently driving the 100% electric Nissan Leaf as her personal car and the 100% electric Mitsubishi i-Miev for business.



Professor Deborah de Lange, PhD (Strategic Management, University of Toronto) is a faculty member in Global Management Studies at the Ted Rogers School of Management, Ryerson University, and in Ryerson's Environmental Applied Science and Management graduate program. Her research examines topics related to sustainable development, entrepreneurship, international organizations and relations, stakeholder theory, network theory, designing and maintaining sustainable organizations, clean technology, and cross-sector cooperation. She has published three books including, *Cliques and Capitalism: A Modern Network Theory of the Firm*, *Research Companion to Green International Studies*, and *Power and Influence: The Embeddedness of Nations*. She is the Vice-Chair and on the North American steering committee for the United Nations Principles in Responsible Management Education (UN PRME).



Alex Kjørven currently leads the Applied Innovation Practice at Purpose Capital, an impact investment and innovation advisory firm that specializes in social enterprise and venture development. Previously she served as the Chief Executive Officer of the Caribbean Corporate Governance Institute where she led the drafting and launch of the Trinidad & Tobago Corporate Governance Code, developed for all listed and regulated companies. Alex is a co-author on Purpose Capital's landmark report *Redefining Returns: The State of Social Finance in the Canadian Financial Sector* (June 2012) and was curator of the 2011 Canadian Social Finance Forum at the MaRS Centre for Impact Investing as part of several roles she held with the Mars Discovery District. Her experiences in the private sector include various roles at KPMG LLP where she performed due diligence as well as audit and internal control evaluations of public and private corporations. Alex is a Chartered Accountant and a graduate of Rotman Commerce at the University of Toronto, where she is currently a sessional lecturer on Social Entrepreneurship to MEng students in the Faculty of Applied Science and Engineering.



Rob Shirkey is a recognized global authority on the subject of climate change labels on gas pumps. He has given lectures on the topic across North America and has been featured in media all over the world. His proposal has been endorsed by some of the world's top climate scientists and is now being pursued by several communities in North America. Rob is a lawyer with a background in business, economics, and psychology. He also once rode his bicycle across Canada!

Contributing Authors

Sadaf Abid is a certified trainer/expert to international (United Nations, ITC-ILO, GIZ) development missions. She has been working in South Asia, Middle East and Europe providing technical advice on: entrepreneurship; reform of training system, capacity building of institutions, and skills for poverty reduction and economic empowerment.

Samuel Addae-Boateng holds a PhD in Management Science and Engineering with specialisation in family business governance. He also holds MBA, BBA, and HND in the field of Marketing and an Affiliate Professional Member of the Chartered Institute of Marketing, UK. He has many research publications in the fields of marketing and family business governance.

Bakyt Amirova is a Master Student of Educational Leadership at the Graduate School of Education, Nazarbayev University, Kazakhstan. Her current position is a teacher of English as a second language at Nazarbayev Intellectual School, Pavlodar. Bakyt promotes leadership of teachers that goes beyond the classroom and motivates teachers to be innovative educators.

Fiona Armstrong-Gibbs is a director of Baltic Creative CIC and a Senior Lecturer in Fashion at Liverpool School of Art and Design. Recently enrolled on the DBA programme at LJMU her research proposal explores how creative and sustainable communities evolve in post-industrial city environments through the use of a social enterprise business model.

Mona Bokharaei Nia is a PhD candidate in IT management. Her research interests are electronic entrepreneurship, big data. She received her MBA entrepreneurship from ent.UT & M.S in IT E-commerce engineering with honors from AUT in 2011. She holds a BSc degree in Computer Software Engineering from UT as top student. She is senior IT consultant in the Telecom industry.

Anthony Paul Buckley is Assistant Head, School of Marketing In the College of Business, DIT. Tony holds a PhD in Management from Lancaster University (UK), a Post Graduate Certificate in Learning and Teaching from DIT, an MBS in International Marketing from UCD and an MA and BSc in management from Trinity College Dublin.

Xavier Caroff is an Assistant Professor of Psychology at the University of Paris Descartes, France. His research focuses on creativity and innovation in organizations, with emphases on individual differences, innovative management, organizational climate for creativity and innovation, and creativity assessment. He is member of a research laboratory in applied psychology (LATI).

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Gulnara Chernobaeva is an Associate Professor and Post-doctoral Fellow at the Department of Innovation and Project Management, Omsk State University, Russia. She teaches several marketing courses. Her main research interest is marketing communications. Currently, she investigates marketing project support. Gul-

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Sakshi Chhabra is pursuing a Full time Doctoral Programme with the School of Management, BITS Pilani, India, with a research proposal “Promoting Women Entrepreneurship in Indian Micro, Small & Medium Enterprises (MSME’s): An empirical Analysis”. She is also an active member of “Nirmaan”(NGO Promoting SHG) and PCA (Punjab Cultural Association) at BITS.

Biagio Di Franco is a PHD Student at the Politehnica University, Faculty of Management in Production and Transportation, Romania. Master Degree in Management of Innovations Polytechnics of Mons, Belgium Master Degree in Management of Transports University of Brussels, Belgium. Master Degree in International Trade University of Brussels, Belgium. Degree in Sciences of Management - Catholic University of Mons, Belgium.

Paolo Di Muro holds an MSc in Mechanical Engineering and returned to academia to receive his PhD from Politecnico di Milano in Management, Economics and Industrial Engineering. His academic interests comprise business model innovation and microfoundations of strategy. Paolo is a Navy Reserve Officer and has fifteen years of professional experience in both small and incumbent organizations.

Smile Dzisi (PhD, Swinburne University Of Technology, Australia) is an Associate Professor in the School of Business and Management Studies at Koforidua Polytechnic. She is also the Dean for the School of Graduate Studies. Her research and teaching interests are in Entrepreneurship, Innovation and Organizational Management.

Nina Evans is Associate Head of IT and Mathematical Science at UniSA in Australia. She teaches ICT Leadership, Business Information Systems and Knowledge Management. She holds tertiary qualifications in Chemical Engineering, Education, Computer Science, a Masters in IT, an MBA and a PhD. She does research in Knowledge Management, Innovation in SMEs and has published widely.

Theresia Gunawan earned her Ph.D degree from Eindhoven University of Technology in Department of Industrial Engineering & Innovation Sciences, The Netherlands, on March 2015. From 2001, she has been working in UNPAR- Indonesia as a lecturer in Business Administration Department and appointed as a Vice Dean of Financial Affairs from 2015- to present.

Mohammad Zakaria Haider is a student of Bangladesh University of Engineering and Technology in Electrical & Electronic Engineering Department. His fields of research include robotics and embedded system design. He is passionate and dedicated to his work. During his undergrad life he has received numerous national and international prizes for his different humanitarian technology based projects.

Jin Hong is an associate professor and director of Department of Business Management, School of Management, University of Science and Technology of China. I have published more than 60 refereed journal papers, such as Technology Analysis & Strategic Management, China & World Economy, etc. My research focuses on innovation studies and Hi-tech industries in China.

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Hang-Thanh Nguyen is currently a doctoral research student at School of Social Sciences, Business and Law, Teesside University, UK. Her research is about how knowledge management for innovation could create competitiveness for Higher Education Institutions (HEIs). Before starting her PhD, she has had five years working as a lecturer in HEI sector.

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Yosheen Padayachee specializes in IT Service and Solution delivery with over 18 years of experience within the banking industry. She holds a degree in Business Commerce: Informatics and PMI Certified Project Manager (PMP). Her expertise lies in Project Management, Risk and Governance, Business Analysis, Process Optimization, Solution Development, Operations, Quality Services and Service Desk Management.

Alcino Pascoal holds a MSc degree in Educational Sciences and BA degree in Chemical Engineering, both issued by FCT-UNL. Alcino has worked at UNINOVA as a project manager (1992-98). Collaborated afterwards with FCT-UNL (1999-2002) as Assistant Professor in Educational Technologies. Advisor to the Board at Madan Parque since 2002. PhD student at FCT-UNL since October'14 (Industrial Engineering Department).

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Tejvir Singh Tomar is working as Associate Professor in Commerce at a college situated at Haridwar in Uttarakhand, India. He writes on Commerce, Management and Social Accountability. He has worked as principal investigator on MRP of UGC, New Delhi, and attended 35 national and international conferences and organized 05 National Seminars.

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Renée Yi-Mond Yuan is from Tamkang University. Ministry of Economy, Energy Commission, REN think-tank Consultant for 2011- 2012. Taiwan Algae App. Research Center Consultant from 2012 Feb on Intl Conf. & JI reviewer 2014 on Research interests :EU CAP, Environment policy, Sustainability.

Keynote Presentation Outlines

The Naked Entrepreneur-Bringing the Real World into the Entrepreneurial Classroom

Dr Sean Wise

Ted Rogers School of Business Management, Ryerson University, Toronto, Canada

The Naked Entrepreneur is a factual TV series devoted to Entrepreneurship that unearths the stories and struggles of those involved in the process. The show is hosted by Dr. Sean Wise, Professor of Entrepreneurship at Ryerson University and is produced by Ryerson University students and alumni. The series, which is filmed and edited on campus, hopes to inspire the young minds a future generation of entrepreneurs as well as everyone else watching around the world. The show is broadcast on the Oprah Winfrey Network, Rogers TV & itunes.

Guests have included Kevin O'Leary, Robert Herjavec, Brad Feld, Gene Simmons, Debbie Travis, John Sleeman and dozens more. All episodes are available for academic use for FREE to all post-secondary institutions of higher learning. The show is used on more than 18 campuses currently.

Why did a professor create a TV show? How can that show be used in the classroom? Who else uses it? Learn the naked truth of this endeavour now heading back into the studio for Season 5. Come find these answers and so much more during this interactive keynote exclusive to ICIE 2016.

No more Ivory Towers: The University of the 21st Century

Dr Wendy Cukier

Ryerson University, Toronto, Canada

Wendy Cukier will discuss the changing role of the University in the innovation ecosystem, as a driver of social and economic development. Leadership, culture, partnerships, agility, new models of teaching, learning, and research and a focus on outcomes are key to bringing the University into the community and the community into the University.

Research Papers

Promoting Peace Through Entrepreneurship Training and Development in Pakistan

Sadaf Abid

International Consultant, UAE (Pakistan, Bangladesh, Italy, Kenya, Nigeria, Vietnam, Laos, Cambodia), International Training Centre of the ILO, International Labor Organization, Deutsche Gesellschaft Für Internationale Zusammenarbeit (GIZ) GmbH

Abstract: High unemployment coupled with the incapacity of institutions to develop entrepreneurial skills, presents a challenge pertaining to the need to create new channels of labor absorption in Pakistan. Lack of quality education en route for employability skills translate into youth not being able to secure decent work. The residue of this ferocious process is frustrated and hopeless youth, trickling down to creating a radical society repudiating all forms of respect and understanding; resulting in peacelessness. The paper is argumentative in nature; Author's perspective on promoting peace related training in the skills sector in Pakistan. A crucial way to pursue civil routes for Pakistani youth is through entrepreneurship. The paper takes in view both Know About Business - KAB (International Training Centre of the International Labor Organization) and Civil Paths to Peace – CPP (Commonwealth) in order to create a peaceful (social) and innovative (economic) society in Pakistan. 'Peace through Entrepreneurship' also goes hand-in-hand with six of the seventeen Sustainable Development Goals adopted in post-2015 development agenda. The methodology in this study is derived from primary and secondary data. The central argument of the study is that young TVET graduates are prone to violence and are victims to poor employment opportunities with insufficient income. With integration of KAB-CPP in national curricula, the author sketches business-peace design through SEED (Social, Economic and Educational Development) and proposes it to be the timely and equipped solution for dissatisfied and radicalized youth in Pakistan. The overall goal of the study is to contribute to empowering youth economically and socially by reducing unemployment and promoting civil behavior.

Keywords: peace education, Pakistani youth, entrepreneurship, small enterprises, technical and vocational education and training (TVET), sustainable development goals (SDGs), economic development

Deepening Innovation in Family Businesses: The Case of SMEs in Ghana

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Abstract: Family Businesses are essential for economic growth and development through new business start-ups (entrepreneurship) and growth of existing ones. Since competition is fierce, the ability of a company to buoy up its business practices and exceed its own – and its competition’s – expectations through innovation is critical to survival. However, one cannot adequately excogitate innovation and its management without perpending entrepreneurship. Many authors define entrepreneurship using newness or innovation as a key word, e.g. to Schumpeter (1934), entrepreneurship means innovation, thus bringing change through introduction of something new by combining existing resources in any social unit, ... In managing family businesses (mostly SMEs) in today’s globally competitive landscape, entrepreneurs must be creative and behave in ways that galvanize workers to be innovative. This study attempts to ascertain the strategies management adopt to heighten innovation in family businesses. The critical question is “how might a manager, who is part of the family that owns and manages an enterprise, positively affect innovative behaviour of individuals working in such a firm? Also, what factors should be evaluated to determine which creative initiatives are promising to be pursued by the family business? Finally, how does management avoid the problem of abandoning many creative initiatives over time, so that it avoids threatening its own ability to grow beyond its core business? Both qualitative and quantitative techniques were employed in gathering and analysing data based upon which conclusions were drawn. The study revealed that seven factors should be assessed by SMEs that are family firms to determine the innovative ideas that are promising to be pursued, which are the uniqueness of the idea, its market potential, cost, expert advice, the impact of both current and future environmental forces, availability of raw materials and supplies, and the idea’s future appeal.

Keywords: innovation, entrepreneurship, small and medium enterprises (SMEs), family business, small and medium family businesses (SMFBs)

Resource Orchestration in IT-Enabled Innovation: An Important Missing Link

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Abstract: This conceptual paper addresses the question: how do firms convert IT resources into IT capabilities and IT dynamic capabilities for innovation? The extant literature on IT capabilities has few studies that attempt to explain “how” IT resources are acquired, exploited, or manipulated in order to support IT capabilities and IT dynamic capabilities. Using a comprehensive literature review, and the theoretical lens of Resource Orchestration Theory, this paper addresses this gap. We demonstrate that firms use the processes of bundling, structuring, and leveraging to convert IT resources into IT capabilities, and IT capabilities into IT dynamic capabilities. We show how firms are able to “orchestrate” IT resources and IT capabilities to innovate and create competitive advantages, even in the face of environmental turbulence which introduces uncertainties that affect the orchestration process. The paper has value for academics and practitioners. For academics, it opens up the black box of the relationships among IT resources, IT capabilities, and IT-enabled dynamic capabilities using Resource Orchestration Theory. It identifies new opportunities to apply this theory and to conduct further research. For practitioners, the paper provides insights regarding the use of IT resources and the development of IT capabilities to enhance innovation and firm performance.

Keywords: resource orchestration, resource-based view (RBV), IT Capabilities, IT dynamic capabilities, environmental turbulence, innovation

Student Project Laboratory as the Ground for Realizing Innovative Business Ideas

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Abstract: The student project laboratory “Project Star” was created at the Faculty of Economics of Omsk State University named after F.M. Dostoyevsky at the initiative of the Department of Innovation and Project Management. Its objective is to realize innovation ideas of students by implementing business environment projects and forming project management skills. The laboratory acts as the ground on which the requirements of enterprises to form youth candidate pool can be met,

and interests of students to acquire entrepreneurial skills as far in advance as possible are realized. The infrastructure consisting of a laboratory office, a method book and work procedure for the laboratory to function was created. Some work on creating a laboratory site is currently being carried out. The need to create a laboratory was based on the marketing research. 83% of students wish to carry out projects under order of enterprises. 52% of students could work out projects 2-3 days a week. This shows earnestness of their attitude towards the development of practical projects. The student project laboratory has been working since December, 2013. The results of the project laboratory work are as follows: 1. Eighteen business projects have been carried out according to orders of Omsk enterprises and organizations, the results of ten projects being implemented into life; 2. Two projects took part in national and international competitions; 3. Six rounds of discussions have been held and the results of the projects were discussed with the participation of employers; 4. Eight graduates of the Department of Innovation and Project Management obtained employment at the enterprises which orders they had carried out. Participation in the project laboratory allowed us to raise project activity motivation of students, to develop the level of entrepreneurial skills and to form the skills of production and practical implementation of innovation ideas in the shape of real projects. The student's project laboratory development plan includes engaging students of different faculties in the project laboratory work and carrying out interdisciplinary complex innovation projects, commercialization of the project laboratory activity with the view of the laboratory sustainability and the further formation of the demand of different enterprises for the project laboratory service.

Keywords: project, student project laboratory, professional competence, innovative ideas

Teacherpreneurs: From Vocation to Innovation

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Abstract: The global market for e-learning is projected to reach \$255 billion by 2017 with a compound growth average of 23 per cent since 2012 (GSV Advisors, 2012). The shift towards digital learning has attracted a wave of digital entrepreneurs who are creating e-learning content, learning platforms, educational apps and online marketplaces. Nowhere is this more evident than in the online 'K-12' market (50 per cent share of the global e-learning market). The term K-12 refers to 12 years of formal primary and secondary education from kindergarten (K) or

nursery – essentially pre-university level education. The purpose of this paper is to investigate the motivations and processes underpinning the launch of online ventures by enterprising teachers in the K-12 industry. Teacherpreneurship (teacher-driven entrepreneurship) is yet to attract significant academic interest and this exploratory study hopes to contribute to knowledge in this emerging field by considering the knowledge from a value creation and capture perspective. The research utilises a multiple case studies approach (Yin, 2014) to try and identify patterns that underlie the practice of teacherpreneurship. The importance of studying this phenomenon lies in the pursuit of solutions to problems of access to K-12 education for children in developing and developed worlds. It also comes at a critical time when internet and communication (Digital) technologies are irreversibly disrupting the traditional education landscape for good. Simply put, learning is increasingly moving online and teacherpreneurs – with their knowledge and experience of curriculum development, learning/teaching methodologies, assessment strategies and learning outcomes – are seen as important conduits of innovation in this new education landscape. The study finds that intrinsic motivation is a major influence on teacherpreneurial behavior. Push factors such as dissatisfaction with the state of the traditional education industry are found to be a contributing influence but not a dominant one. In terms of the entrepreneurial process then, the cross-case analysis also finds that the discovery of opportunities is in all cases fortuitous and that the opportunity is exploited using an effectual approach. Finally, the research offers pragmatic guidance for nascent teacherpreneurs contemplating a start-up venture in the e-learning market space.

Keywords: entrepreneurship, teacherpreneurship, entrepreneurial motivation, entrepreneurial process, value creation and capture, e-learning

Fostering Sustainable Entrepreneurship Through Innovative Pedagogy: A Futuristic Overview

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Abstract: Purpose – The purpose of this paper is to understand the innovations in pedagogy and its role in fostering sustainable entrepreneurship among university students. Design/Methodology, Approach – The paper adopts an exploratory and descriptive research design capitalizing on authentic and reliable secondary data through exhaustive studies of reputed journals/literatures, data sources from several universities, and international bodies/organizations. Findings – The findings presented in this paper will list down the innovative pedagogies and learning methods used in entrepreneurial education and mapping its usefulness in foster-

ing sustainable entrepreneurship among university students. Originality/value – The value addition of this research lies in presenting a brief review on innovative pedagogy tools and techniques adopted by educational institutes to foster sustainable entrepreneurship among university students. Limitation- The review will be to the extent of considering research articles/journals/publications focusing primarily on innovative teaching, learning techniques/programmes run by educational institutes at University/College level for entrepreneurial education as primary focus of the study. Scope for Future work: Validation of these innovative pedagogical tools and techniques in a specific context can be studied further, for example, for promoting (targeting) women entrepreneurs/targeting entrepreneurs for different industrial/Business Sectors, learners with different educational background etc.

Keywords: sustainable entrepreneurship, innovation, pedagogy, entrepreneurial education, entrepreneurial development

Competing Through Organizational Ambidexterity: The Entrepreneurial way to Meet Strategic Goals

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Abstract: Ambidexterity – one firm’s ability to exploit own current capabilities while exploring new competences – has become a relevant topic in management literature in recent years and is largely addressed as a fundamental capability for firms’ long-term success and performance. A comprehensive theory of Ambidexterity has not yet been generated, remarkably when the understanding of its enabling factors and the peculiarities of ambidexterity application at SME level are considered. This paper thus aims at exploring how ambidexterity generates competitive advantage and how it is enabled to achieve objectives of entrepreneurial SMEs through the generation of analytically derived constructs and their deployment to generate emerging grounded theory by means of inductive case studies of three Italian entrepreneurial firms, being end-to-end makers of world recognized masterpieces in the automotive and marine businesses. This study advances (a) strategy literature identifying an ambidextrous approach to business as an integral and core capacity for competing and (b) providing with a set of microfoundations of strategy in entrepreneurial firms and (c) it advances about Ambidexterity, being one of the very first incorporating entrepreneurial SMEs in the discourse in the attempt to identify peculiarities in the way they cope with the challenges of balancing exploration and exploitation at organizational and strate-

gic level. The cases show how preferential paths of Ambidexterity can be identified at SME level, with objective-driven combinations of contextual, sequential and network ambidexterity controlled by the mediating effort of the entrepreneurs, thus showing that – under these specific conditions – smooth and balanced management of exploration and exploitation is possible, in contrast with well accepted March’s view (1991) of tension and competition for scarce resources in large ambidextrous environments.

Keywords: ambidexterity, microfoundations, SME, strategy, competitiveness, entrepreneurship

Connected Health Innovation Within SMEs: Understanding the Market Place

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Abstract: With the long-term health of many organisations tied to their ability to innovate, to provide existing and new customers with a continuing stream of new products and services, it is important for companies to undertake innovation. Therefore, they must continually generate new ideas which they have to build, market, distribute and support. Given the increasingly complex and knowledge-intensive business environment with shortened product life cycles, smaller firms need to take an increasingly prominent view of innovation and how its various stages applies to their firms. Small to medium-sized enterprise (SMEs) tend to improve and to diversify their technology by searching in different markets that enable them to use and build on their existing technological base. In this paper, we are interested in connected health as an innovation – where it involves using technological innovations to improve healthcare outcomes and to change the processes through which healthcare is delivered. The global population is growing older with an increasing incidence of long-term conditions. There is also a global shortage of healthcare professionals. These factors have resulted in traditional healthcare solutions becoming more costly. Therefore, connected health innovations are important and provide opportunities for SMEs. As with many other countries, Ireland’s economic growth is dependant in part on the small-to-medium sized enterprise (SME) sector. We undertook a case study research project with a small Irish company who develop Connected Health solutions, devel-

oping a PESTLE (Political, Economic, Social, Technical, Legal and Environmental) analysis within three potential markets – healthcare market in a developing country, healthcare market in a developed country and wellness market in a developed country. Our results identified a variety of factors to support the growth and innovation of small companies in the Connected Health domain and stress the importance of how a SME (and indeed other innovators) must take the market as well as the innovation into account.

Keywords: innovation, connected health, PESTLE analysis, marketing, SME, company growth

Forces Driving SMEs' Innovative Performance: Entrepreneurial Orientation and Basic Absorptive Capacity

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Abstract: This study focuses on the role played by entrepreneurial orientation (EO) and absorptive capacity (ACAP) in an SME firm's innovative performance. This study proposes that the relationship between EO and innovative performance becomes more substantial when the levels of ACAP are high. Using ordinary least squares (OLS)- regression analyses, 120 owners and managers of footwear industry in Cibaduyut-Indonesia were asked to complete the questionnaires. Surprisingly, even though the EO concept and ACAP have received a great deal of scholarly attention recently, little research has gone into approaching the interaction between the two. EO, which equates to a firm's strategic posture in terms of proactiveness, risk-taking, and innovativeness, is considered to be of instrumental importance (Covin and Slevin 1991). EO competencies are important for the innovativeness of firms because EO is associated with a process of experimenting with new things, a willingness to seize new products, new markets, and new opportunities, and a firm's propensity for undertaking risky ventures (Lumpkin and Dess, 1996). However, its benefits may take years to come to fruition, depending on the circumstances under which it occurs (Wiklund and Shepherd 2005). This study also addresses the importance of ACAP in generating an SME's external knowledge. ACAP is thought to be an important competency for valuing,

acquiring, and assimilating knowledge and eventually transforming it into new products or processes (Todorova and Durisin 2007). Unlike previous ACAP studies, the authors propose that prior knowledge relates to a firm's ability to recognize and value knowledge as a "basic absorptive capacity" (BACAP). Then, a firm's ability to acquire, assimilate, and implement the new knowledge is signed as "extended capacity" (EXCAP). Due to a lack of attention to either BACAP or EXCAP, firms can fail to obtain the optimum benefits of knowledge. Thus the distinction between the two could help firms to recognize the importance of both capabilities. This study has advanced the prior studies with several contributions. Firstly, the lack of a universal outcome for EO posture (Kreiser, Marino, Kuratko, and Weaver 2013) prompts the authors to return for this theory to a basic study of EO performance. Secondly, the authors also advance the research on ACAP by empirically validating the distinction between BACAP and EXCAP. The result of this study shows a curvilinear pattern (U-shaped) for the influence of EO on innovation. Then, BACAP can strengthen innovative performance.

Keywords: innovation, entrepreneurial orientation, absorptive capacity, knowledge, basic absorptive capacity and extended absorptive capacity

Exploring the Roles of Incubator Managers Play in the Niche: Empirical Evidence From China

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Abstract: Although the importance of the incubator managers for successful incubation has been widely discussed, there is little evidence on how the incubator managers leverage various resources contributing to incubation success. In order to fill this gap, the purpose of this paper is to investigate the extent to which the incubator managers act as the niche manager in the incubator context. Specifically, an evaluation is made to explore the influences of expectations, networks, and learning constructed by the incubator managers on the incubation performance. Using data of 189 national technology business incubators (NTBIs) from 2008 to 2012 in China, we find the venture capital obtained from private organizations performs better than the incubation fund which is mainly obtained from governments. While the internal network building has a great positive impact on incubation performance, the external network tends to act as "bad networks". Finally, the incubator managers are not always sufficient to offer support for technology breakthrough in Chinese NTBIs.

Keywords: incubator managers, strategic niche management (SNM), niche manager, incubation performance, technology business incubators (TBIs), China

Exploring Women's Entrepreneurship and Innovation in Micro Business

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Abstract: Drawing on in-depth interview data from women entrepreneurs, this paper explores the discursive practice of innovation as reflected in the relationship between modes of innovative behaviour and women entrepreneurship in micro business. This qualitative study illustrates and links the elements of innovativeness that focuses on how women entrepreneurs practice and implement, in new modes, as well as adopt certain innovative behaviours. In being innovative, individual entrepreneurs need new directions and make choices which help sustain or develop their entrepreneurial skills. They have to draw on the pull and push factors to shape innovations. At the same time they need to reconcile the constraints of how they construct their lives and their businesses particularly within the gender framework. The paper is part of a bigger study that explores the micro and informal small-scale businesses from four different zones in Peninsular Malaysia. Based on a thematic analysis, the study finds that innovation could transform the desired direction of gender entrepreneurship in micro-businesses. This exploratory study also shows that it is important to explore gender entrepreneurship and innovation across stages of economic growth.

Keywords: gender, micro business, women entrepreneurs, innovation, Malaysia

Business Incubation and Business Model Innovation

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Abstract: Communities around the world have been looking for ways to encourage and support new-business development to enhance economic development and create jobs. One mechanism of the entrepreneurial ecosystem is business incubation. The concept of business incubation has evolved significantly over the years. The number of incubators is rapidly increasing in both developed and emerging economies, and incubators are becoming increasingly networked. How-

ever, many are supported by government funding and lack strategy that would make them self-sufficient. This paper reviews the concept of business model and proposes that it can help in innovating and designing sustainable ways of operation for incubators. The study contributes to discussions on business incubation by enriching our understanding of how the business model perspective, particularly business model innovation, can enhance the evolution of business incubators, hence moving the field forward and promoting future theory development.

Keywords: incubators, accelerators, business model innovation, new technology-based firms, sustainability

Knowledge Entrepreneurship in Emerging Economies

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Abstract: Buoyed by high prices of resources and favorable global financial market conditions and increasing demand for labor-intensive and resource-based products in last two decades many developing countries have demonstrated a spectacular growth trajectory. However, due to the rapidly shifting global economic situation, exacerbated with slowing world economy and lower prices for resources recently these countries have started to face complex development challenges. Overcoming these challenges and setting a course of renewal growth track in the new economic realm will require redefining priorities. The focus should be on the quick adoption of structural reforms with the vision of faster integration into the global knowledge economy. Transformation to knowledge economy requires painstaking, complex and all-encompassing social, institutional, and infrastructural changes. The underlying components that are instrumental to this change are high-quality tertiary education, robust information and communication infrastructure, supportive institutions and legal system, and innovation-oriented entrepreneurial culture. Economic growth and wealth creation in a society largely depends on entrepreneurial activities. A country that relies on the entrepreneurship as its growth engine, where conversion rate of ideas to an enterprise is high, demonstrates better macroeconomic growth. In Knowledge Economy, entrepreneurs are one of the primary driving forces in the creation of disruptive innovation and dissemination of knowledge inventions. Because of this, the emphasis has to be on the creation of an environment that bolsters new company formation in knowledge-based industries and high productive service areas. In the present environment of global economic uncertainties, the author argues that one approach to regain lost growth track would be to put emphasis on the knowledge entrepreneurship. Developing countries willing to tap into their nascent potential and sustain growth with the help of knowledge entrepreneurship

have to take some concrete steps though. These steps include enacting government policies of increased investment in ICT infrastructure, human capital development, adopting institutional regime and incentives conducive to entrepreneurship, and innovation, and R&D cluster development. This paper compares and analyzes country data from various global indices related to innovation, entrepreneurship, human capital and ease of doing business indicators for BRICS countries. The findings reveal which countries from the selected ones have the biggest opportunity to build a knowledge economy based on knowledge entrepreneurship. It also offers recommendations what others need to do to achieve similar competencies.

Keywords: knowledge economy, knowledge entrepreneurship, emerging economies, developing countries, economic growth

The Effects of Emotional Intelligence and Relationship Quality on Innovation and Performance

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Abstract: The relentless challenge to innovate is the DNA of high-technology firms. The challenge for leaders is to ensure that R&D groups provide new opportunities for growth by effective transfer of technology ideation to commercial products. While microfoundations in the dynamic capability literature suggest why some management leaders are more skillful in managing innovation than others, empirical evidence linking microfoundations of leadership and team behavior to innovation are not well understood. Evaluating relational quality for sharing organizational vision, feeling connected, and being infused with energy for the mission of the group appears to be missing from the dynamics capability literature as contributing factors. Also missing is a deeper understanding of leadership behaviors that effectively leverage relational quality to drive innovation and organizational performance. This multi-rater study uses responses from R&D leaders and their multi-raters to bridge the use of existing measures from strategic management and leadership with relational climate to understand how the quality of relationships drives product innovation success and effects organizational performance. Our conceptual framework and empirical findings contribute to extant research in strategic management and innovation by showing that leadership emotional and social intelligence behaviors positively effect innovation and organizational performance. Moreover, we find that relational climate contributes to product innovation success, and that R&D leaders have more significant impact on innovation and performance through the quality of these relationships. The

ability of the organization to innovate and deliver outstanding operating performance appears to depend on the ability of the R&D leader to foster positive relational climates as a daily rhythm of work life. While technical, analytical, and cognitive skills are a clear given in the technical disciplines of engineering management within R&D teams and organizations, they are insufficient to drive innovation and performance alone.

Keywords: emotional and social intelligence, leadership, innovation, relational climate, dynamic capability, microfoundations, organizational performance

A Case Study of College/Rural Community Collaboration for Project-Based Learning Entrepreneurship Education

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Abstract: This research study examined a collaborative project between a small rural Alberta community, a college and six teams of business students. A mixed method approach was taken to gather data using student and instructor interviews, questionnaires and surveys. A before and after participation survey was conducted with 250 students in order to discover, if lectures, games or project-based learning was a more effective pedagogy in teaching entrepreneurship. The results showed no significant differences in effectiveness between these pedagogies and so the pilot project pedagogy choice was based on student preferences. Students completed a third survey after their participation in the pilot project which revealed that over 50% of the students stated that they preferred project-based learning over other pedagogies used at the College. The responses gathered during the research process revealed a “win-win” situation for all project stakeholders. The most important findings in this research study were revealed through the student survey results showing students believed they learned entrepreneurial skills and knowledge best using project-based learning. 96% went on to suggest this type of learning should continue to be used for future College programs.

Keywords: entrepreneurship, collaborative learning, community, project-based learning, emergent learning

Triggering Power Strategy Variance due to Conflicts in Entrepreneurial Relationship Businesses

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Abstract: This paper provides insight on how conflicts in hybrid business organizations can arise effecting performance of the organization. To investigate this, a study of the relationship between franchisors and franchisees is presented where franchisors' view is given. The study shows that it indeed is both art and science of the strategy of the franchisers to keep the b2b relationship sustaining and flourishing. The study included responses of 124 franchisors from the United Kingdom. It also utilizes validation interviews from 8 academics, franchisors and practitioners. We suggest that the franchisor – franchisee relationship is the ultimate expression of hybrid relationships. The results show that the franchisor strategy on power greatly depends on franchisee behavior and the exercise of the power by the stronger party may vary accordingly. The results also show that the size and age of the franchise system greatly affect the use of power strategy. The prevalence of conflicts between the two partners also negatively impact the whole franchise system. The conflicts also trigger the change in the future plans of the franchisor and these may be related to numerous areas of the business. It is also evident that the accruing strategy is different and dynamic at each stage of the life cycle and according to the size of the firm.

Keywords: inter-organizational relationships, franchising, power strategy, franchisor, conflict management

Managers' Intention to Innovate as Predicted by Attitude, Perceived Capacity and Organizational Climate

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Abstract: As organizations are in constant evolution, managers need to challenge their current practices and adopt new and adaptive behaviours. Innovative management is the introduction of new practices intended to respond to challenges or enhance organizational performance (Hamel 2006; Mol & Birkinshaw 2009).

Drawing on the Theory of Planned Behaviour (e.g. Fishbein & Ajzen 2011), this research investigates factors determining managers' intention to be innovative. Ettlé & O'Keefe (1982) advised researchers to study specific innovations rather than unfocused innovative behaviours. Therefore, to capture authentic and tangible attitudes toward the creation of innovative behaviours, we addressed managers' intention to innovate in order to implement telework. Our interest in telework resides in the challenge it presents for managers who have to question and adapt their managerial practices in order to implement it efficiently within their team. Managers' attitude toward telework, their attitude toward new ideas, their orientation toward risk-taking and their perception of organizational climate were identified as potential determinants of managers' intention to create innovative behaviours in order to implement telework. But for the Theory of Planned Behaviour (Fishbein & Ajzen 2011), these variables have only an indirect effect on manager's intention to create innovative behaviours. Indeed, all their effects are mediated by three main factors – attitude toward the creation of innovative behaviours, subjective norms and perceived behavioural control. A sample of managers ($N = 91$) who never implemented telework completed an online questionnaire designed to assess these factors. First, results indicate that managers' attitude toward innovative behaviours and their perceived capacity predict significantly their intention to innovate. Second, effects of managers' attitude toward new ideas and toward telework on intention to create innovative behaviours are mediated by managers' attitude toward creating innovative behaviours in order to implement telework. Third, managers' perception of their capacity to innovate mediated the effect of organizational climate on managers' intention to create innovative behaviour. In this study, managers were confronted to a situation that challenges their practices and offer them the possibility to intend to innovate. Surprisingly in this context, certain managers had few intentions to create innovative behaviours due to either their unfavourable attitudes or a lack of perceived capacity. Results are discussed in terms of their specificity to telework or their generalizability to any managerial innovative behaviour. From a practical point of view, results show that in order to foster managerial innovative behaviours, organizations could establish a climate that encourages creative and innovative behaviours.

Keywords: innovative behaviour, management, theory of planned behaviour, intention

Barriers and Challenges for Technology Transfer at R&D Organisations

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Abstract: The development of innovations faces a number of substantial, technical, and organisational obstacles; however, a more problematic area than technology development is its transfer, which is understood as the process of transferring scientific findings from one organisation to another for the purposes of further development and application in practice. Numerous barriers hamper the process of implementing technologies into industrial practice. The paper focuses on the barriers of key importance for Polish R&D organisations involved in the process of innovation development and implementation. The paper presents different types and classifications of barriers. Scholars most often analyse barriers of an organisational and legal nature as well as system barriers. Against this background, the authors propose their own classification of barriers comprising the following: (1) technical barriers, (2) organisational-economic barriers, and (3) system barriers to technology transfer. Taking into account the barriers analysed in literature and the authors' own experience in executing research projects and cooperating with industry, the authors present barriers that they met in practice in the period of several years of conducting research and implementation activity. From the practical point of view, barriers of a technical nature are of key importance. Moreover, organisational-economic barriers must be faced by technology providers and other entities present on the market involved in the development of innovative technologies. Among the system barriers to technology transfer, the most important for R&D organisations seem to be those stemming from the imperfect system for financing and supporting the implementation processes. The author presents real examples of technology transfer processes hampered by the influence of different types of barriers encountered in practice by a Polish research organisation (Institute for Sustainable Technologies – National Research Institute) in the area of developing innovative technologies.

Keywords: technology transfer barriers, technical barriers, organisational-economic barriers, system barriers, innovative technologies, R&D organisation

Risk Perception and Entrepreneurial Leadership: The Voices of Japanese Entrepreneurs

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Abstract: This paper is concerned with how managers, either operating as independent entrepreneurs or as intrapreneurs in an established company, view the risks involved in starting up a new project in a high technology industry. It presents the findings of interviews that were conducted over a two-year period. This study focuses on the perception of risk. Sources of risk are seen as primarily related to factors that can cause the project or business to fail or go bankrupt. One critical source is finding employees. This source of risk is intricately linked to the leadership characteristics of the entrepreneur/intrapreneur, in new ventures.

Keywords: entrepreneurs, risk, leadership, technology, Japan

Culture and Entrepreneurship in the United Arab Emirates

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Abstract: Culture plays an integral role in shaping an entrepreneur's motivation, self-concept, personality and cognition. This study aimed to identify specific cultural factors that affect entrepreneurship in the United Arab Emirates (UAE) context and the wider Middle East region. The study used a qualitative methodology and in-depth interviews to focus on the lived experiences of eight university graduates who had entrepreneurial intentions as undergraduates, but only half managed to start a business whilst the half opted for employment. The study sought to understand how cultural factors lead to the fruition of these different outcomes. A further sample of two incubator managers was used to triangulate findings. Interviews revealed four themes of Collectivist Nationalism, Perceptions of Entrepreneurship, Religion and Tradition, and Reputation. Outside other social structures such as family or government, these themes represent the main cultural influences that affect young Emiratis. This study concludes that the UAE culture promotes a sense of civic duty and seeds ambition, which encourages entrepreneurial action; however, cultural influences can also add to the fear of failure and push Emiratis towards less risky careers options of employment. Findings

highlight a complex network of interrelated cultural factors that alternate as barriers or enablers, depending upon personal circumstance and other environmental factors. Whilst the nature of cultural factors and their application to entrepreneurship in the UAE is complex, the study highlights opportunities to counter some of the barriers, which signal a number of practical implications for practitioners. Previous studies conducted in the region indicated strong correlations between culture and entrepreneurial intentions. However, these studies do not explore which elements of culture seed intentions or indeed lead to entrepreneurial action. Given the increasingly globalized market place for entrepreneurs, developing a better understanding of culture is crucial to advance entrepreneurship and economic progress. Findings presented here indicate opportunities to further develop and adapt support mechanisms for nascent entrepreneurs according to cultural differences, making them more relevant to different regions across the world.

Keywords entrepreneurial action, religion and tradition, motivation, culture, collectivist nationalism

How Millennial Generation Entrepreneurs use Mentors to Improve Performance

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Abstract: Successful small businesses are critical to the success of the global economy, but they continue to fail at high rates. Despite the unfavorable odds, millennial generation Canadians are showing a higher than average interest in starting new companies. This generation, born between the years 1980 and 2000, includes over 6.9 million people, roughly 25% of the Canadian population. Mentoring is a technique proven to improve the performance of new entrepreneurs and their businesses. Futurpreneur Canada is a not for profit organization that provides financing, mentoring, and support tools to small business owners aged 19-39. The purpose of this multiple case study was to explore how some millennial generation small business owners participating in the Futurpreneur Canada mentoring program used mentors to improve their performance as entrepreneurs. Data included semistructured interviews with 6 successful participants of the Futurpreneur mentoring program, experience profiles of these participants, and public information about the Futurpreneur program. The intent was to exam-

ine the phenomenon from a Canadian perspective, drawing from unique perspectives of program participants previously identified as success stories. Manual coding, cross-case comparison, and thematic analysis revealed mentor roles that supported the tenets of adult learning theory and existing literature on mentoring. The analysis of data from these sources revealed that these mentors provided psychosocial support by performing the roles of sounding board, monitor, and confidence builder. These insights may help program designers, entrepreneurs, and mentors as they work together to create healthy mentoring relationships that enable entrepreneurs to develop the organizations that will move society forward and solve the challenges of the future.

Keywords: entrepreneur education, millennial generation, mentoring, Canadian small business

Entrepreneurial Aspects of Eco-Tourism

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Abstract: The article discusses theoretical and methodological issues of the development of eco-tourism as a form of ecological entrepreneurship. Given the definition of entrepreneurial eco-tourism as a special type of tourism that combines a contradiction between the interests of entrepreneurs and the interests of to preserve natural resources. The principles of ecotourism are the basic rules that characterize the specificity of ecological tourism. Adherence to the principles of ecotourism for entrepreneurial generates a set of the features of business in eco-tourism. Entrepreneurship in eco-tourism, as well as any type of tourism has certain stages of the formation, development and implementation of the tourism product. The article shows what aspects should be carefully studied in the implementation of activity by the entrepreneur in eco-tourism. It is evident that adherence to certain requirements and conditions, which are proposed in this article will contribute to the success of the entrepreneur. International, national and local aspects play an important role in the formation of the tourism product and therefore these aspects of entrepreneurship considered at these levels. On the example of the problems of development of ecotourism in Kazakhstan is shown what errors may occur during the development of entrepreneurship in ecotourism, how important to comply the requirements and conditions for the effectiveness of entrepreneurship in ecotourism.

Keywords: eco-tourism, entrepreneurship in eco-tourism, features of entrepreneurship in eco-tourism

Managing Knowledge for Innovation to Gain Competitiveness in Higher Education: A Review

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Abstract: Knowledge management (KM) is the process of capturing, distributing, and using organizational knowledge effectively. It has become a crucial process for Higher Education Institutions (HEIs) seeking to implement innovations effectively to improve their competitiveness. This paper describes the purpose, subject, and outcome of a literature review focusing on the research question: “In what way does knowledge management in HEIs’ innovation process create competitive advantage for them?” Given that the relationship between knowledge management and innovation, knowledge management and competitiveness, and innovation and competitiveness is fragmented – with a dearth of literature written about the inter-relationships between these three concepts, especially in the Higher Education (HE) sector – we contend that it is both timely and apposite to undertake a review of the extant literature in this area. As a result, we have gained a comprehensive, transparent, and non-biased understanding of this theme. Drawing on a review of 52 articles, a proliferation of studies has been revealed identifying relationships between knowledge management and innovation and competitiveness or HE but mostly relate to open innovation (about knowledge creation and transfer from universities to external stakeholders, especially in the corporate sector), considering the role of universities as knowledge producing centres; and external innovation (how external innovation affects knowledge management in universities). However, relatively little has been written about the role of managing knowledge in HEIs’ innovation processes that could create competitive advantage for them. We argue that these key concepts require clarification in the competitive advantage. The topics of knowledge management and innovation are discussed in the context of HEI context and call for a new research agenda in this underdeveloped field. The authors’ proposed future research involves further in-depth analysis of the literature, identifying and refining the research gap where this study could contribute, and designing a conceptual model for future empirical application.

Keywords: innovation, knowledge management, competitive advantage, higher education

Factors Explaining the Risk Attitude Toward Entrepreneurship in Pakistan: A Comparative Analysis

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Abstract: Entrepreneurship is an inherently risky endeavor. This study empirically examines factors which explain risk aversion among individuals, which in turn is linked to the likelihood of opting to become an entrepreneur. It utilizes a cross-country dataset with observations from 54 countries produced by the Global Entrepreneurship Monitor (GEM) for the year 2011. The questionnaire employed in GEM Adult Population Surveys gauges the self-identified fear of failure among individuals, and this paper duly takes this variable duly as a proxy for risk aversion. Since the dependent variable is of binary nature, the research utilizes a probit model to compute coefficients and marginal effects, firstly for the entire dataset consisting of over 140,000 observations, and secondly for a sub-sample of 2,002 observations from Pakistan - an emerging economy. Comparison of results from the two samples reveals that while a number of explanatory variables appear to have a significant effect on risk aversion in the case of all countries taken together, the relationships are diminished or are missing altogether in Pakistan's case. Among the notable results, women tend to display greater degree of risk aversion than men globally, whereas in Pakistan they are less risk averse compared to male counterparts. In a similar manner, while individuals possessing self-confidence in their abilities to start a business have lower risk aversion globally, this relationship is reversed among Pakistani respondents. The quadratic effect of age on the dependent variable, observed in the global sample, remains absent from the country-specific result. Other demographic and perceptual variables, like education, opportunity perception and opportunity motivation, which have a considerable impact on the degree of risk aversion observed among respondents globally, also appear to have insignificant effect in the case of Pakistan. The paper thus paves the way for further research into which factors are universal and which are unique to countries or regions, in the context of risk attitude.

Keywords: entrepreneurship, risk aversion; fear of failing, emerging economy, Pakistan, GEM

Empowering Entrepreneurial Women in Traditional Herb Business in Southwestern Nigeria

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Abstract: Traditional Women Herb Sellers (TWHSs) deals in medicinal materials from plants' parts like leaves, flowers, fruits, seeds, rhizomes and other animal parts. Despite their pivotal roles in Nigeria health care delivery system, they continue to suffer neglect and poor working capital. This study investigated women activities in traditional herb business in south-Western Nigeria. The study emphasized majorly on qualitative techniques and it was supported by quantitative analysis. Multi-stage sampling procedure was used. 3 urban/rural towns were randomly selected in each state of Lagos, Ogun, Oyo, Osun, Ekiti and Ondo states totaling 18 while one public market was targeted in each town. 4 sellers were randomly interviewed in each market totaling 72; and 27 buyers/clients were randomly interviewed among customers patronizing each of the sellers during our visits. A total of 486 clients were interviewed but only 480 were analysed using Statistical Package for Social Sciences (SPSS). Descriptive statistical techniques (frequency, percentages and weighted mean score) were used to summarize the data collected. The qualitative data were analyzed using content analysis. Secondary data were extracted from, internet documents and official publications. The study revealed that TWHS were mainly elderly people (90.3%). They treated different ailments and were all married (100%). Majority of them were illiterate (54.2%) with many years of experience. They displayed their wares in the market places WITH little capital base. All the participants complained of poor funding and claimed inability to access loan due to their low level of literacy and neglect by the government. Nevertheless, the findings showed that socio-economic attributes of Women Traditional Herb Sellers (WTHSs) had significant effect on their performance, ($\chi^2=47.06$; $df=2$; $p < 0.01$). The findings also showed significant relationship between the treatment modalities of WTHSs and their performance ($\chi^2 = 48.56$; $df=2$; $p < 0.01$). Moreover, there existed significant relationship between the networking strategies of WTHSs and performance ($\chi^2=17.86$; $df=2$; $p < 0.01$). It was found that WTHSs provided health care services on both preventive and curative health care, with significant association between the performance and patronage by their clients ($\chi^2=83.56$; $df=6$; $p < 0.01$), especially in the areas of malaria, infertility and small pox to mention a few. The study concluded that in spite of the importance of WTHSs in the society, there is inadequate financial and research assistance from government and academia. Thus, Government, Non-

Governmental Organizations (NGOs) and research institutions may have to increase their research budgets to modernize the traditional herbs sector.

Keywords: empowering, entrepreneurial women, rural/urban, traditional women herb sellers, nigeria health care delivery system

Improving Innovation Activity in Transport Sector: The Case of Kazakhstan

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Abstract: The road transport in Kazakhstan is one of the largest sources of CO₂ emission in the country. Big cities in Kazakhstan suffer from the problem and there is an urgent need to mitigate it. Identifying of main factors affecting the amount of CO₂ emitted may help to find out the necessary resolutions. Currently most vehicles exploiting in Kazakhstan were produced more than ten years ago and usually most of them were purchased abroad. These automobiles emit huge amount of CO₂ into the atmosphere. The findings reveal that mostly it depends on the vehicle ownership and the economic growth. It is necessarily to apply relevant innovations in transport sector with an intention to reduce amount of CO₂ and implement effective energy consumption. The quality of oil products for export and domestic use influences in the end climate change, people's health, and the environment to live in. In addition, it is important to evaluate the level of readiness for innovations such as production of high quality oil products (euro standard) and production or import and an intention of people to buy and use electric vehicles.

Keywords: transport sector, innovation, CO₂ emission mitigation

Complex Technology Assessment System of Innovative Products

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Abstract: The paper presents an original complex technology assessment system supporting the process of advanced technology development and application. It comprises the following modules: The implementation maturity level assessment module comprising general assessment scheme and detailed assessment procedures depending on the type of an innovative product (technology, material, sys-

tem, service); The commercial potential assessment module; and, The innovativeness level assessment module. The system is presented against the background of the origins of technology assessment and methods and approaches applied by other scholars and practitioners. The presented complex technology assessment system is of a comprehensive character and includes numerous assessment criteria. The main advantage of the system comprises the possibility to assess innovations at any stage of a project execution, including ex-ante, ongoing, ex-post, and follow-up, and to compare the assessments results at different stages of product development (from the concept stage, through the development stage, to the final technology stage). Moreover, assessment results concerning particular products and processes developed within projects can be used in the evaluation of whole projects and programmes. The practical value of the system is proven by its use for the assessment of several hundred technologies for the needs of research organisations, technological parks, and enterprises, particularly in the SME sector in Poland.

Keywords: complex technology assessment system, innovative product, implementation maturity level, commercial potential, innovativeness level

Opportunity Creation in Industries Driven by Deep Knowledge Specialization: Evidence From the High-Performance Computing Industry

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Abstract: If entrepreneurship is the discovery, evaluation, and exploitation of opportunities for financial gain, then a firm understanding of entrepreneurial opportunities (EOs) becomes an essential goal for entrepreneurship researchers. Much of the attention paid to EOs has focused thus far on determining whether an EO is created or discovered by entrepreneurs. Based on our review of this literature, we conclude that Shane (2012) and other objectivists have mistakenly equated phenomena such as regulatory changes and technological breakthroughs – or what Davidsson (2015) has termed “external enablers” – with EOs, when an EO is better understood as an imagined new good or service (or firm or venture etc.) made possible by an external enabler. Thus, an EO is always created. Of course, some EOs may also be discovered; consider, for example, new consulting services made possible by the Sarbanes-Oxley Act, which were “discovered” by numerous lay persons. But are some EOs not discoverable? If so, which types of EOs are discoverable, and which are not? To answer this question, we investigated EO

creation and discovery practices at high-performance computing (HPC) centers, which are charged with developing, maintaining, and providing services around advanced HPC systems that support computationally-intensive, cutting-edge scientific research. Our analysis of interview data revealed that EOs that require for their conception the application of deep, specialized knowledge may not be discoverable. Where this type of EO is discoverable, it may only be discoverable by a few HPC centers at most. Instead, it may be up to the HPC center to create their own EO. These findings, which inform our model of opportunity creation in industries driven by deep knowledge specialization, may apply to any industry that functions to advance scientific and/or technical knowledge.

Keywords: entrepreneurial opportunity, opportunity creation, opportunity discovery

Green Marketing and its Impact on Consumer Based Brand Equity

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Abstract: With increasing competition, an economically and ecologically challenging times, marketing function in organizations have been looking at developing innovative approaches to meet the bottom line of economic, social, and ecological sustainability. The purpose of the paper is to examine the effects of green marketing strategies on the dimensions of consumer based brand equity. This study addresses a gap in literature on green consumers' stated pro-environmental beliefs and actual consumption behaviors of purportedly green consumers. Based on a review of literature a conceptual model is developed. Drawing upon relevant extant literature, the paper proposes a research model to evaluate the relationship between green marketing mix elements and the dimensions of consumer-based brand equity. With data collected from consumers' in Saudi Arabia, the research model is tested by a two-stage process. First, to assess reliability and validity of the measurement model. Second, to test the various hypotheses. The results of the conceptual analyses are presented. Managerial implications and limitations are discussed. This study makes a valuable contribution to literature given the growing importance of ecological and sustainability concerns and the efforts marketing firms have been making to have a better understanding of green consumers.

Keywords: brand equity, green marketing mix, green marketing, green products

The Relationship Between Transformation Leadership and Entrepreneurship in SMEs of the Guilan Province

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Abstract: Due to the importance of entrepreneurship in the present competitive world and the need to apply the appropriate leadership styles to employees to encourage creativity and innovation, the main goal of this research is to survey the relationship between transformation leadership and entrepreneurship in SMEs of Guilan. The studied population includes 10,000 people of managers and experts in SMEs of Guilan and according to Morgan, 384 people were chosen as samples. The information was gathered from the two standard questionnaires and the Cronbach's alpha clarified that their reliability is also acceptable. (In the first questionnaire the alpha was 0.9269 and in the second one it was 0.8090). To analyze the survey hypotheses and conclusion, the inferential statistics method such as Pearson's correlation coefficient and multiple regressions showed that: there is a meaningful relationship between encouraging mental, idealized influence, motivation inspiration, individual consideration and the entrepreneurship in SMEs of Guilan. Also encouraging mental and motivation inspiration has a significant effect on the entrepreneurship in SMEs of Guilan and idealized influence and individual consideration do not have a significant effect on the entrepreneurship in SMEs of Guilan.

Keywords: transformation leadership, entrepreneurship, SMEs and motivation inspiration

Swimming Against the Current: Why is the ‘Open Innovation’ Concept so Rarely Criticized?

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Abstract: Since ‘Open Innovation’ (OI) concept has been proposed by Henry Chesbrough in 2003, it has been enjoying an upward trend in popularity. However, OI concept is *not a bed of roses!* On the contrary, it has been criticized on three major fronts: a) dearth of solid theoretical underpinning; b) research shortcomings, many uncharted research domains, and dearth of external validity; and c) being built upon fuzzy pillars so much so that it has been labelled for being ‘*old wine in new bottles*’. Thus, in view of the persistent conceptual and empirical trenches of OI, there remains a perplexing question: *Why has OI been formally criticized by only few in academic context?* The present conceptual paper, through analytically reviewing the extant literature of OI, first offers a summary of the major ‘shortcomings’ and ‘critiques’ associated with OI research. Second, it analyzes the erosion factors’ giving rise to OI, and their conceptual relevance. Third, by drawing upon main ‘barriers associated with strategy of pursuing failure’, ‘theory of fads’, and ‘concept of informational cascades’, it further attempts to provide a plausible explanation to this study’s research question. Finally, I propose an inductive theory in form of three propositions in order to explain the current status-quo, and forecast the future dynamics of the research on OI. This research is exploratory in nature; however, it is significant because OI’s conceptual development has reached a critical intersection where it may evolve into a ‘*runaway train*’ advancing towards an unknown destination and detached from existing theories as its rails and breaks. In this sense, OI may remain ‘merely’ a framework without offering rigorous theoretical insights about firm-level innovation management process. Thus, to develop a consistent body of knowledge well rooted in relevant theories, and to facilitate adoption of OI by practitioners, we need to encourage further criticism on OI and address them aptly.

Keywords: open innovation, inductive theory building, conceptual research, critique

Entrepreneurship Development and Innovation Management: Key Connections

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Abstract: Entrepreneurship development and innovation efforts in business increase in scope, complexity and link to increasing numbers of key stakeholders, so do demands for careful and systematic execution of developmental and innovative implementation in evolutionary learning. Use of innovative strategies and tools is an emerging solution for entrepreneurial implementation. Entrepreneurship development and innovations have brought about a evolution of thinking in the field of business and expanded the boundaries that traditionally separated economics and other social science disciplines. In entrepreneurial development of business, the concept of innovation is increasingly being used to diagnose entrepreneurial problems as well as to craft economic interventions. In an era of increasing global competition, it is argued that innovation and entrepreneurial skills are the key sources of competitive advantage. It discusses how the innovations influence and changes their roles and how those roles are organized. It explores the emergence and increasing importance of social networking competency for entrepreneurial innovations as successfully engaged in new roles. It provides a conceptual model of innovative entrepreneurship development, integrating the literature on business angels, new venture creation, entrepreneurship, small and medium enterprises, business simulation, start up management, entrepreneurship development programs, assumption based planning, e-commerce, strategic management and alignment, competitive advantages and entrepreneurial challenges. In addition, the findings from emerging entrepreneurial literature were reported as four key themes: model, tools, theories and research. The article discusses interventions that can be used by entrepreneurship development researchers and practitioners to improve performance in business by developing innovational commitment in the organization.

Keywords: innovation, entrepreneurship, e-commerce, tools, theory and model

Entrepreneurship Education: The Best Practices of Leading Universities

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Abstract: In the article results of the analysis of factors of efficiency of educational programs for business at universities of the different countries are presented. The authors use economic, statistic and sociological methods of data collection, processing and analysis including expert questionnaires and interviews. Peculiar feature of author's approach is in attempt at complex comparative analysis of entrepreneurship educational programs offered by the leaders in the field in different aspects: starting from educational program content to peculiar features of training infrastructure. As a result of the conducted researches, it is proved that a success major factor in formation of enterprise competencies is existence of the full closed cycle of training and support of business from transfer of basic knowledge before real support of the beginning businessman and often subsequently consulting maintenance of the operating business.

Keywords: entrepreneurship, entrepreneurship training, educational program, teaching infrastructure, entrepreneurial competencies

Product Innovation Versus Business Model Innovation: The Case of the Walkman and the iPod

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Abstract: Sony used to be one of the Japanese companies with the highest brand value. According to InterBrand, one of the world's leading brand consultancies, Sony was worth \$16.4 billion in 2000, which ranked the company 18th in the world in the brand value at that time. However, after the collapse of the Bubble Economy, Sony lost its brand value gradually. In 2004 it was ranked 52nd in the brand value with the worth of \$8.13 billion, and now has fallen further into the "losers" in the Japanese industry. Even today Sony has not been able to recover; it is regarded as an ordinary company that does not remind us at all of its glorious days in the past. Why has Sony declined so quickly? What are the causes of it? The authors answered these questions by considering them from the perspective of innovation. First, the authors discussed the structure of innovation. It consists

of the product (goods or service) innovation, the process innovation (it means to make the same goods or provide service in improved ways), the business model innovation, and the social innovation. Then, the authors examined Sony's success in the product innovation and its failure in the business model innovation with the Walkman as a case study. The Walkman was Sony's long seller item. It was born in 1979 and its 220 million sets were sold worldwide by March 2010. Nevertheless, the device failed to avoid becoming obsolete on the market. The greatest enemy of the Walkman was Apple's iPod. Unlike Sony's way to incorporate music into the hardware, Apple has developed a new method to download music on the Internet. This embodies the business model innovation rather than the product innovation. Apple developed the concept of the product, designing the arrangement of the parts and appearance of the iPod, but it did not manufacture the product by itself. It hired the external contractors to do the job. In contrast, Sony made it a rule to do all of the work by itself. This is because it pursued the perfection of the Walkman. Therefore, Sony failed in the business model innovation rather than the product innovation.

Keywords: Sony, Walkman, Apple, iPod, product innovation, business model

Greening Cities Experiences

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Abstract: The face of modern large cities has been changing and evolving in recent years in size, population density, activities, transportation, infrastructure, carbon emission, and sewage water, garbage production or needs. Asia and other fast developing economies and population may lead the way with the fastest population growth in the world in the coming decades and reach 70% of global population. Increasing attention and interest has being given to garden and parks. More recently, urban green spaces have been identified as being vital for balance in lifestyle, health. They also have a role to play in the social arena and community life, such as landscaping or enhancing the visual aesthetics of natural landscapes; trees and plants mitigate somewhat GHG by fixing Carbon emission; and moreover green spaces create relaxing recreational spaces in metropolitan areas provide opportunities for social activities for people living or working in the neighbourhood. When we look at recent history on East Coast of the United States, just a century ago we saw bitumen roads, concrete, steel, glass, buildings and infrastructures transforming cities. While suburbs came into existence expanded, replacing farmlands and fields into metropolis. There has been an interesting evolution of innovative and creative green solutions, such as the use of the balcony or roof for gardens or farms, green walls, small size orchards with water

basins across the cities, vegetable garden parks open to public leisure gardening or, vertical farms inside building (Tokyo, Paris, Taiwan...). Green architectural microalgae bioreactors cultures on Paris left bank surface wall, on highways (Switzerland) producing value added biomass by using photonic energy to capture carbon dioxide remediation obligation in the future; Microalgae multiple output and by-products may turn out as an important income contributor for skyscrapers management. Greening cities case studies might show promising results on paths to improve environment, quality life, simultaneously, create new perspectives and economical opportunities for sustainable societies. The case studies from Taiwan are interesting for other cities in both the East and West incite for further discussion and debate on what greening can be bring into urban infrastructure and on the right equilibrium component share to adopt for future planning, and the implications for building as a greening process

Keywords: cities, green, future, environment, case studies

PHD Research Papers

E-Entrepreneur Critical Success Factors for e-Entrepreneurship in the Virtual World

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Abstract: The notion of an e-entrepreneur has recently gained recognition amongst both academics and practitioners. Recently, the e-entrepreneurship and e-innovation demonstrate the key success of e-business in the virtual world. The constant development of information and technology in the virtual world has had a significant influence on various possibilities for developing innovative business concepts based on electronic information and virtual communication networks and has led to the realization of these concepts by establishing e-entrepreneurship through the e-entrepreneur. Since the e-entrepreneur plays a serious role, the main objective of this study is to examine the identified success factors for e-entrepreneurship. The lack of a commonly accepted theory of e-entrepreneurship leaves enough room open for the introduction of critical success factors especially for an entrepreneur to enter into the digital world and act as an e-entrepreneur. We offer critical success factors of entrepreneurs in the virtual world that describe the main attributes that enable them to create their own e-business. Factors associated with IT business founders that operate mostly in the telecom value added services and e-commerce, i.e. online shopping, are investigated with the following parameters: Achievement orientation, Risk taking propensity, Social e-networking, Technology awareness, E-creativity, e-innovation, Experience in the sector of e-business, building virtual social networks, Ability to exhibit e-leadership, Being part of an entrepreneurial family, Age, gender, and educational level. Using a simple random sampling technique, several entrepreneurs with at least three to four years of e-business operations in Iran were selected as our respondents. Data was gathered through a survey in the form of a questionnaire. Multiple regression analyses were used to test the relationship between the e-entrepreneurial factors and e-entrepreneurship success with the proposed model that evaluates the e-entrepreneur demographically, characteristically, and objectively in the virtual world. In conclusion, this study confirmed that some of the proposed success factors such as technology awareness, achievement orientation, and e-innovation are significantly related to the success of an e-entrepreneur in the virtual world.

Keywords: e-entrepreneur, e-entrepreneurship, e-commerce, success factor, virtual world

Analysis of Consumer Behaviours in Presence of a Radical Innovation

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Abstract : History teaches us that people who refuse a technological or ideological radical innovation often fight tenaciously to preserve the status quo (resistance to change), which can cause a ripple effect to the group, family or even be extended to an entire population. This research aims to describe through the results of interviews, qualitative and quantitative surveys the behavioural process of the consumer in presence of a radical innovation with the objective to reduce or to cancel his resistance. When a radical innovation is introduced to the market through a "Push" strategy, most of the people unconsciously get involved in a "Behaviours reacting in chain" or a "spiral or process of resistance to innovation" as major result of the rejection of innovation. The state of the art has highlighted the key variables that create resistance to innovation following the "push" strategy. These are: traditions and norms, existing usage patterns, perceived image, information overload, physical risk, economical risk, functional risk and social risk. It is only after having realized his irrational reaction that consumer "rationalizes" his behaviour up with pseudo scientific excuses or ideological arguments, while resistance is based on personal subjectivity. Often the resistance to a radical innovation is not a rational reaction. Because during experiences before any rational analysis of the radical innovation consumer have rapidly manifested resistance to changes and rejected the radical innovation. Once started, it is very difficult to stop "the spiral or process of resistance to the innovation", the results of surveys and interviews confirm that when innovation is radical, the first reflex of the consumer is the need for security as major result of the rejection of innovation. This research may help to highlight the importance of the mode of presentation and characteristics that a radical innovation must have before its announcement to the market in order to prevent the engagement in the process of resistance. In this way innovation will be adapted to the market and not imposed.

Keywords: customer resistance to innovation, radical innovation, model of consumer resistance to a radical innovation

Innovative Behavior of U.S. Pharmaceutical Firms

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Abstract: The innovative behavior of firms is of high interest for academia, governments, entrepreneurs, and managers as well. The interaction of a firm with both its customers and competitors leads to certain behavioral patterns that could be followed to understand the motives behind particular strategic actions. This empirical paper addresses the issue of whether the innovative behavior of firms within the pharmaceutical industry could be analyzed with the latest methods of the behavioral theory of the firm in spite of its inner specifics, which could cause firms to behave differently. The behavioral theory of the firm, via its concept of search, explains in which situations firms are likely to search for new alternatives, i.e. innovating, and in which they are likely to preserve the status quo. The process of search for new alternatives is evoked in two types of conditions – firstly, when a firm does not achieve its level of aspirations, which leads to a problemistic search, and, secondly, when it has significant slack resources, which leads to a slack search. Both types of search have, according to the behavioral theory of the firm, an impact on a firms' change in R&D expenditure. The pharmaceutical industry presents a challenging environment to put the assumptions of the behavioral theory of the firm to the test, as it is a high R&D-intensive industry with the ability to evaluate its prospects many years ahead with patent expirations, new drug approvals, etc. Using the panel data of U.S. publicly traded pharmaceutical companies, the paper works towards empirical confirmation of the influence of the industry specifics on classical assumptions and the necessity to take them into account in any research on the behavior of firms. The results of the study show that the behavioral theory of the firm is losing its explanatory power in the areas particularly affected by the industry specifics, i.e. in the explanation of the problemistic search's influence on R&D expenditure. This paper, therefore, points out the necessity to take a firm's context, in this case, the industry specifics, into account in order to successfully explain a firm's behavior.

Keywords: behavioral theory of the firm, innovation, pharmaceutical firms, R&D

Supply Network in Open Innovation From Perspective of Social Network

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Abstract: Purpose – As the locus of knowledge has been extended beyond firms' boundaries, firms need to search outside for new knowledge to sustain their competitive advantages. The purpose of this study is to examine how a firm can manage and govern supply ties to access new knowledge, from the perspective of social network. We examine the role of inter-organizational interactions and network structure in enhancing knowledge flow in inbound open innovation with suppliers. Design/methodology/approach – First, A systematic literature review methodology was adopted. The research design, given that the study of open innovation is still at a nascent stage, consists of an exploratory case study to provide an in-depth analysis. We adopt semi-structured interviews to examine the role of social network in knowledge flow in supply network. Findings – The findings of this paper add to the understanding of the role of inter-organizational interaction and network structure in enhancing knowledge transfer in open innovation practices. We propose that the implementation of open innovation with suppliers requires specific supply networks based on the interactions between buyer and suppliers. Building from the SLR, we extend the idea of tie strength by Granovetter (1973), and introduce two forms of strong ties; “vital strong ties” and “overembedded strong ties”, and two forms of weak ties; “potential weak ties” and “infant weak ties”. We propose how overembeddedness and future interaction influence governance modes. Research limitations/implications – Although the main contribution of this paper is in extending the body of literature in open innovation research by looking at social network theories, the current propositions have to be validated by empirical analysis. A qualitative case study is currently in progress. Therefore, we cannot go forward until the results of this case study allow a general contribution to be made and increase the validity of results. Practical implications – First, the paper suggests how social network theory can enhance inflow of knowledge from suppliers in open innovation projects. Second, we extend inter-organizational relationships by adding vital strong and potential weak ties. This classification allows us to examine effective governance modes even at the early stage of innovation. We propose that the expectation of future business with weak ties constrains opportunistic behavior of suppliers and affects knowledge flow positively in open innovation. As for potential strong ties, they should not be excluded from open innovation projects since they can provide valuable knowledge to speed up the innovation process. Our argument also encourages practitioners to actively and dynamically make and maintain networks with

suppliers in order to gain access to new knowledge. Originality/value – This study marks one of the first attempts to explain the role of structural and relational dimensions of social network in different inbound open innovation approaches with suppliers. Additionally, this study is also the first to extend the literature on strong and weak ties.

Keywords: social network, open innovation, supply network, tie strength, network structure, buyer-supplier relation

Equity Crowdfunding: Impact of the Innovation Degree on Fundraising Campaigns

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Abstract: Crowdfunding (CF) has recently appeared as a modern tool for various projects financing, from cultural issues to humanitarian aims. Entrepreneurial projects also emerged on crowdfunding platforms: entrepreneurs can finance their growth thanks to products pre-sales (reward-based model), loans (lending-based model) or shares sales (equity-based model). Consequently, Equity Crowdfunding (ECF) is considered as a new financing tool for entrepreneurial ventures. As classical business-angels (BA) or venture-capitalists (VC) investments, this way of financing is oriented to innovative ventures, as start-ups. In difference with literature on BA and VC, none academic study worked on level of innovation and innovation's perception impact on ECF campaigns. In our paper, we worked on 39 ventures projects financed on the 1st ECF French platform, Anaxago. They are from various sectors: real-estate, medical technologies, e-business, and others. We evaluated the level of innovation's perception of these ventures on 3 dimensions (market, technology, and business-model). Then we categorized these projects in 4 main types: real-estate, non-innovative, incremental, and exploration. From their fundraising campaigns, we collected various data (amount targeted and collected, backers' number, followers' number, report access asks ...) to understand if their innovative dimension impacts fundraising campaigns or not. Our research demonstrates that the innovation perception has real impact on many characteristics of online fundraising campaigns: amount targeted and collected number of backers and individual financing, number of followers, report access number. For some other characteristics, our work doesn't identify real distinctions (online report access, collect rhythm). For some others, our data are not enough for conclusions (press releases, awards).

Keywords: equity crowdfunding, entrepreneurial finance, exploration projects, innovation financing, start-up financing

The Framework for Future Business Model Scenario Road-Mapping

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Abstract: A business interacts with environmental forces that shape opportunities and pose threats to the company. However, the current dynamic and unstable business conditions lead to complexity and an increased uncertainty about the future. In such an altering atmosphere, businesses should change their business models regularly in order to maintain their competitiveness and adjust or shift the business form. Indeed, the competition is not only among businesses but among business models as well. On the other hand, futures study is capable of sketching the alternative futures of an industry's environment and proposing several approaches for insight acquisition pertaining to the state of the future. Used in futures study, scenarios and road mapping are flexible tools fitted to deal with uncertainties. Actors in the Iran software industry experience several uncertainties such as sanction omission, shifting reliance on the oil economy, and government approaches toward trades. The futures approach suggests that future business models can be designed in advance by applying future methodologies. Previous research has pursued the concept of a future business model shaped through future methodologies with respect to specific cases, but the literature does not suggest any frameworks for creating future business models. This paper creates a framework for attaining an appropriate and successful business model using the Business Model Canvas approach, road mapping, and scenario development. Whereas scenarios clarify futures, roadmaps define actions and business model changes. Therefore, this paper suggests a framework for understanding the successful orientation of business model components under alternative futures, future oriented steps to achieve the new states of business model components, and the approach for performing these actions.

Keywords: scenario development, business model, road map, GAHP

Assessing Entrepreneurship Pedagogic Impact on Knowledge Creation and Human Capital Development

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Abstract: Entrepreneurship education has been established as a pertinent factor in advancing economic growth, wealth creation and key competencies that help individuals to create, discover, as well as transform unique ideas for human capital development. This model paper of entrepreneurship pedagogic assessment provides an impact assessment measurement for students' entrepreneurship knowledge creation and entrepreneurial human capital asset. An underlying assumption of entrepreneurship assessment is that they create value to enhance teachers' role to developing students' growth mindset; however, the extent and nature of these entrepreneurship pedagogic assessment outcomes have not been explored in entrepreneurship education literature. This paper proposes to bring forth empirical insights synopsis in developing a contemporary model for impact assessment of entrepreneurship education pedagogy, with specific measurement metrics to understand students' growth mindset and associated social context needed for entrepreneurship education pedagogic assessment outcome. This model study offers practical assessment for faculty, educational institutions and policy formulators' literatures to expound critical initiatives in the assessment of pedagogic and instructional design to develop competency and knowledge for capital asset formation. It assesses and situates the functional impact of pedagogy as it relates to classroom design as well as teachers' influence towards expected learning objectives or outcomes. It also explores the dynamic role of teachers towards rethinking the pedagogy of entrepreneurship education, thus, provides insight on the assessment of entrepreneurship pedagogical structure as well as cognitive capacities of entrepreneurship educators on students' competency renaissance and knowledge performance. The study proposes to further explore values to engage students' in improving faculty's assessment of the feedback loop of entrepreneurship program to institutional connectedness. It also highlights the impact assessment value of reconceptualization and reengineering of entrepreneurship education pedagogy on students' mindset. It proposes practical impact assessment of entrepreneurship pedagogy to critically evaluate the curriculum structures and forms of entrepreneurship education pedagogy that is needed to reframe student growth mindset to drive entrepreneurship knowledge creation as well as investment outcome of human capital development. **Keywords:** entrepreneurship education, assessment, pedagogic, social context, entrepreneurship pedagogic assessment outcome, entrepreneurship pedagogic structure, human capital development

Actualizing Entrepreneurship's Potential in a Late Emerging Economy: Role of Manufacturing SMEs

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Abstract: Much progress has been made within the literature examining entrepreneurship and small business development in respect of how entrepreneurs in small firms have impact in different social, institutional, geographical and political contexts. Recent research has also highlighted how the interplay between the internal characteristics of entrepreneurs are affected by, and in turn affect, the context in which they act. Contexts regarded as manifesting absent, weak, ineffective or inefficient institutions have been argued to exert a significant level of constraint on the agency of entrepreneurs. For such entrepreneurs to overcome the resultant challenges from such contextual constraint, some scholars have advocated that they may need to undertake other entrepreneurial roles (ER) aside a dominant economic one. To date, although different ERs such as social, economic and institutional ER have been identified, this seems to have been at the expense of a deeper and more holistic understanding of the dynamics of their interrelationship. The few holistically orientated studies seem to focus exclusively on social entrepreneurs; resulting in portrayal of individuals undertaking other ERs as only capable of undertaking a *single* ER throughout their entrepreneurial journey. However, evidence from empirical research on economic entrepreneurs operating in certain contexts challenges such "one entrepreneur-one ER at one time" disposition. As contexts change, changes in ER or combination of ERs may inevitably emerge. Therefore, considering that different ERs are argued to be distinct from one another, more research work is needed to fully understand the effect of their interplay on the efficacy of entrepreneurship in a focal entrepreneurial context. The purpose of this paper is to explore entrepreneurship as a multi-dimensional concept and the focus is on contexts where institutions remain weak or underdeveloped (usually referred to as institutional voids). To address current neglect in the entrepreneurship literature, a qualitative investigation was undertaken in Nigeria, a late developing emerging economy that measures poorly on the World Bank's ease of doing business index. Using semi-structured interviews, entrepreneurs of small and medium enterprises (SMEs) operating in the manufacturing industry in Nigeria were interviewed in regard to business formation and development. To provide a deeper and more contextualized understanding of entrepreneurship, Insight is drawn from institutional theory, dialectical critical realism and the French proximity school and applied to the findings. The findings have implication for entrepreneurship practitioners, educators and researchers. Findings suggest that SME entrepreneurs are motivated to change or combine ERs due

to outcomes attributable to the presence of institutional voids. Changing and combining ERs however impacted the society positively as the entrepreneurs become industry trainers and suppliers of skilled labour, and a transfer conduit for knowledge acquired through education, professional experience, and overseas exposure, and also consequently stimulate and create ready markets for technology innovation in the machine fabrication industry. In conclusion, by taking a holistic view, insight was gained into how entrepreneurs in SMEs deal with an ostensibly constraining context by switching, alternating and combining different ERs during different stages of their business ventures with positive implications for the societies in which they are embedded.

Keywords: entrepreneurship, institutional voids, small and medium enterprises, entrepreneurial roles, proximity and distance, dialectical critical realism

Innovation Ecosystems Centred in EU-Based Science Parks: Recent Past and new Trends

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Abstract: The concept of Science Park dates back to mid-50s and the strategic considerations undertaken at North Carolina, with critical contributions from academia and inestimable state governor support. This newly approach to link University with private business did have its burdens and drawbacks, until financial partners were engaged and there was a clearer view about the institutional set-up. Research Triangle Park followed shortly after, whenever these issues were sorted-out. Europe followed too such trend, albeit a few years later. Sophia-Antipolis was one of the primary names to emerge (early 70s), whereas year 1984 witnessed the incorporation of International Association of Science Parks. This can be seen as a direct result of the significant role science parks were playing in terms of heightening socio-economic development. European policies started also to reflect these changing paradigms, having proceed to the implementation of political/funding instruments targeted to such endeavours. Scientific concern beyond this work in progress addresses key characteristics of a Science Park, deemed essential for a sound operation and the fulfilment of its mission statement. Triple helix model is embedded still within Science Parks, but has evolved into more complex structures. Technology hub, entrepreneurship ecosystems and innovation ecosystems are but a few of recent denominations. The later have been used to better describe the fuzzy reality of Science Parks and their performance metrics in terms of A) ability to retain talents; B) network significance; C) accelerator capacity and D) science-to-the-market delivery. This work consists of a

reflection about innovation models followed by Science Parks, quoting some EU-based examples. There's a discussion about recent trends, heavily influenced by external factors such as the scarcity of resources; sustainability; the individual; green economy. Way ahead encompasses smart specialisation and strategic thinking, being the paper a contribution for the analysis of regional dynamics which are Science-Park centred.

Keywords: science parks, EU innovation policies, strategies for smart specialisation, triple helix, quadruple helix, innovation ecosystems

Evaluation of Students' Perceptions of Entrepreneurship Education

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Abstract: Entrepreneurial students who were interested in completing a new minor on entrepreneurship and innovation were interviewed. The interview protocol primarily focused addressing three research questions. 1) What are the challenges and barriers to being an entrepreneurial student? 2) What are frustrations that students experience when working on entrepreneurial projects or coursework? 3) How would students improve the new minor? In total, 32 participants agreed to be interviewed. The students varied both on their level of entrepreneurial experience and the market they were interested in exploring. An outline for a semi-structured interview protocol was created by the authors and reviewed by the instructors of the courses offered in the minor. Unsurprisingly, the results indicated that the two largest barriers to being a student entrepreneur were time and money. However, several other common barriers became apparent including: receiving a lack of respect from people they were working with in the real world and lacking confidence in their abilities. The most frustrating aspects of entrepreneurial classes were group work and project failure. Full results and student quotations are shared and provide students' suggestions for improving entrepreneurship education programs and the overall student experience. The results and procedure highlight the value of utilizing multiple methods of data collection and analysis when evaluating courses and curriculum. Additionally, general suggestions for improvement are provided that may be applicable to similar programs at other institutions.

Keywords: program evaluation, qualitative, interviews, entrepreneurship education, student experience

Assessment of an Entrepreneurship Education Program

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Abstract: The paper reports the results from a survey evaluation of an entrepreneurship minor, and describes how the survey compliments other data collection methods used in an overall evaluation plan. The survey was administered near the beginning and end of each semester of the minor. Over two years, 530 students completed two surveys in the same semester. In total, 323 students were interested in completing the minor and 94 students indicated that they were currently working on developing a product of business venture. The most survey was comprised of a mix of short answer questions and scales. Students had to completed a demographic questionnaire (gender, ethnicity, major, number of completed semesters, number of completed entrepreneurship classes, intention to minor, cluster preference, working on a current venture, entrepreneurial relative, international student, career goals), the Entrepreneurship Knowledge Inventory (Besterfield-Sacre, Ozaltin, Robinson, Shuman, Shartrand, & Weilerstein, 2013), Creative Self-efficacy Scale (Tierney & Farmer, 2002), Entrepreneurial Self-efficacy Scale (McGhee, Peterson, Mueller, & Sequeira, 2009), and rated their ability on twelve entrepreneurial skills or traits. All students who completed two surveys in the same semesters showed significant increases on the Entrepreneurship Knowledge Inventory and confidence in their ability to engage in a number of important entrepreneurial skills including communication, building value, managing complex data, behaving ethically, tolerating ambiguity, and creative ability.

Keywords: assessment, program evaluation, entrepreneurship education

Master Research Paper

Introducing an Integrated Innovation Governance Framework (I2GF)

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Abstract: Despite the availability and use of good practice governance frameworks, the success rate of innovations remains disappointingly low. This paper introduces the Integrated Innovation Governance Framework (I2GF). The I2GF model details an integrated approach to successfully deliver innovations. The model focuses on the appropriate use of governance practices when and where it's needed. The I2GF model remains independent of the delivery methodology used to deliver innovations. The model comprises 5 key zones to deal holistically with innovation management. This research paper also attempts to understand the complexities faced by large organizations to deliver innovations. The study considers well established governance frameworks i.e. CoBit, ITIL, ISO 9000 and PMBok and related work to ascertain the gaps and key contributors that cause innovation delivery to fail. A qualitative study surveying replies from various participants across Financial Services Organizations (FSO) was conducted to answer the following research questions: (i) Are organizations with formal, established innovation processes successfully implementing innovations? (ii) Do large use good practice ICT and Risk governance frameworks and methodologies manage innovation? (iii) Do the use of good practice ICT and Risk governance frameworks and methodologies contribute to improving the success rate of delivering innovations? (iv) What are the key reasons that cause failures of success implementation of innovation? (v) Will an Innovation Governance framework improve the success rate of delivering innovations? The results show that these organizations have included numerous governance and risk management frameworks in their innovation management process. These organizations have established a structure approach to administer their delivery cycle but still experience a low success rate to implement innovation. The final section of this paper presents the results and interprets and contextualizes the gaps in the innovation management process. The researcher explains how to implement the I2GF model to address the gaps in addressing the findings of the research study.

Keywords: innovation, governance, risk, I2GF

Non Academic Paper

Baltic Creative Community Interest Company: Critical Success Factors in Creative and Digital Clusters in Liverpool, UK

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Baltic Creative CIC

Abstract: The purpose of this preliminary case study paper is to establish the historic context and evolution of Baltic Creative Community Interest Company (CIC) in Liverpool and identify the key activities that have defined its success as a social enterprise business over the past five years. Baltic Creative CIC was established in 2009 to provide work space for the creative & digital sector. It has overseen the implementation of £4.5m acquisition and redevelopment scheme, attracted 65 businesses to the space and implemented systems and controls to operate as a fully functioning commercial landlord through a social enterprise business model. It has also played a key part in transforming the Baltic Triangle area of Liverpool which was once a derelict, unloved and under-used part of the city. By 2014 the space was fully let supporting businesses and creating jobs and the area is home to a vibrant community of creatives and technologists. During the first five years of Baltic Creative, growth has far exceeded expectations and the CIC now supports 182 full time equivalent jobs, and its tenants add £1.4m every year to the regional economy. Baltic Creative is now considered an exemplar social enterprise in a post-industrial city. This case study makes a valuable contribution to the knowledge of social enterprise development and business success and the impact of long term capital funding initiatives that can create a sustainable business model. The research method currently in development for this study is an auto ethnographic approach. As a founder director of BC CIC it is not possible for me to deny both my motivations to join as a voluntary board member, my access to the data and my influence on the strategic direction that the CIC has taken over 6 years. The findings are also triangulated through semi structured interviews with the MD and Chair of the board to identify any unique or particularly personal bias.

Keywords: social enterprise, Liverpool, creative and digital sectors, funding

Work In Progress Paper

Teacher Leadership

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Abstract: Teacher leadership is a recent innovative notion in the sphere of education, especially for Kazakhstan which has been transforming the system of education in a significant way. Many initiatives are implemented by the government of Kazakhstan, among which are professional development courses, salary increment, and Master's and PhD programs to increase teacher qualifications. Among other key initiatives is a network of Nazarbayev Intellectual Schools (NIS) around the country that has become a platform for implementing innovative learning and teaching technologies in collaboration with the international staff. Many researchers discuss the importance of non-positional leadership, especially in educational sphere. The research is focused on developing leadership skills of the teachers beyond their classrooms as teachers' expertise can be a cornerstone of decision making and policy development. Although leadership is considered to be a prerogative of school principals and administration in our school culture, the shift towards teacher leadership should be promoted and manifested by all school educators. Modern attitude towards the role of teachers and teaching itself has shifted, and teaching profession is not considered as not prestigious or socially vulnerable in Kazakhstan. Nevertheless, it is regrettable, that majority of Kazakhstani teachers feel anxious and reluctant about the educational innovations preferring to improve classroom management only and not taking part in decision making. Many of Kazakhstani teachers are not aware of non-positional leadership and do not consider that they have expertise to make a difference voicing their initiatives or ideas on school improvement. The research focuses on the main challenges that teachers face while exercising leadership skill at the school site and what steps should be taken in order to promote teacher leadership. There is an urgent need for carrying out such a research as the phenomenon of teacher leadership has not been investigated yet in the Kazakhstani context. The findings of the qualitative research will contribute to the study in the field of teacher leadership, especially in Central Asia region, and will be beneficial for teachers, school administration, and policy makers.

Keywords: innovation, teacher leadership, education, challenges, Kazakhstan, NIS

Abstracts Only

DISHARI: An Online Platform for Visually Impaired Students

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Abstract: According to a statistical survey, almost 2000000 visually impaired (VI) people live in Bangladesh amidst of which around 800000 are aged between 15-25 years. Around 35% VI persons are involved with education. The underlying reason behind this poor percentage is the unavailability of proper guidance and educative tools for blind education. The scenario gets more dismaying when some people appear to be completely ignorant about the available facilities around them. In the present era of scientific revolution the world has reincarnated itself as a global abode. Smart devices and internet are becoming more and more available so internet based mobile apps can be a handy tool to improve this situation. The idea is to develop an online knowledge sharing platform to make the educative tools and materials more available to the VI students involving the organizations and schools currently working with visually challenged persons where the beneficiaries can work together and the institutions can help them make their lives easier. It will contain an online library where VI people can collect audio versions of books. Besides everyone can share their profile and materials that are available to them. Individuals can register themselves to work as volunteers or can find organizations related to VI people. Location based search facilities will be provided, hence one can find volunteers and share materials like Braille books and other written documents with other VI persons living close to them. If someone needs a book or a helping hand for examinations, they can post it in this online forum and the respective people will be notified accordingly. To make the entire process more user friendly mobile apps will also be developed where voice command based operations and virtual Braille keyboard will be integrated.

Keywords: Braille embosser, visually impaired students

Challenges and Contribution of Women Entrepreneurs in Economic Development in Kenya

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Abstract: Women entrepreneurship as an area of research had been understudied although it is the fastest growing population. Previous research on entrepreneurship treated women entrepreneurs the same as men, meaning there was an assumption that, what men entrepreneurs undergo is similar to women entrepreneurs. Subsequent research has established that women entrepreneurs encounter more barriers in their business venture operations ranging from higher interest rates, tighter credit/loan conditions among other challenges. The nature of their enterprises also differs in size, structure and area of industry. Most women entrepreneurs businesses are small in nature, require less funding, and tend to offer personalized services or trade namely retail and wholesale services. Majority of women enterprises arise from necessity based entrepreneurship. Women entrepreneurs in addition are faced with social cultural challenges of bringing up families thus needing business/ family balance as well as taking into account growth of women headed households. Studies have shown that women entrepreneurs prefer autonomy, hence would shy away from equity financing or venture capital. The modern woman is better educated and has excelled in many spheres of life from professional, academic, social and technology as well as entrepreneurship. Funding options targeting women have been established example Kenya Women Finance Trust (KWFT) in Kenya. Conferences and journals focusing on women entrepreneurship have been established. According to GEM, 2014 the number of new ventures created globally by women is on the rise. Women entrepreneurs hence contribute to economic development by creating decent employment, provision of goods and services, labour, taxes and also consumption of goods and services within their enterprises. Women have revolutionized personal services industry in beauty and cosmetics, fashion in Africa and beyond. The consumption patterns changes and growth of middle class in Africa is majorly driven by women. Women entrepreneurs have defied the glass ceiling and are now venturing into construction, manufacturing and big projects which has greater impact on the economy. Taking advantage of 30% Government businesses allocated to women, youth and persons with disability, who were previously marginalized, will greatly impact women visibility and economic contribution in Kenya.

Keywords: economic, women, development, challenges, contribution

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The Challenges and Mindset Limitations Impacting Innovation in Manufacturing SMEs in Regional Australia

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Abstract: Small and Medium Enterprises (SMEs) are often described as the ‘backbone’ of a country’s economy that should be recognised as a major source of prosperity and employment. In Australia, SMEs constitute 95.9% of businesses and they therefore play a significant role in the economy and society. SMEs are especially critical to the resilience of rural and remote communities. The ability to innovate is considered to be one of the most important strategic capabilities of manufacturing SMEs. The new economy is earmarked by relationships, networks, knowledge and information. Qualitative case study research was conducted through personal interviews with managers of manufacturing SMEs in regional Australia, to identify the challenges they face to innovate and survive in a digitally connected business environment. The research revealed that the SMEs face external challenges such as the downturn in the Australian manufacturing sector, geographic- and social isolation, limited access to capable staff and technical infrastructure limitations. It was also found that the mindset of regional SMEs result in behaviours that limit their innovative capability. They are often competitive instead of collaborative, they focus on operational issues rather than having a strategic outlook, they lack technology skills and prefer face-to-face networking instead of using social media to connect with stakeholders. This paper includes recommendations for SMEs to overcome these challenges and mindset limitations.

Keywords: SME, manufacturing, regional Australia, challenges, mindset, innovation

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