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## **Editorial**

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**Biographical notes:** Dr. Angappa Gunasekaran is a Professor and the Chairperson of the Department of Decision and Information Sciences at the Charlton College of Business, University of Massachusetts-Dartmouth (USA). He teaches undergraduate and graduate courses in Operations Management and Management Science. Dr. Gunasekaran has about 200 articles published in 40 different peer-reviewed journals. He has presented 60 papers and published about 50 articles in conferences and given a number of invited talks in more than 20 countries. Dr. Gunasekaran is on the editorial board of 20 journals. He has organised several international workshops and conferences in the emerging areas of operations management and information systems. Dr. Gunasekaran edits journals in operations management and information systems areas. He has edited a number of special issues for highly reputed journals. Dr. Gunasekaran is currently interested in researching benchmarking, management information systems, e-commerce (B2B), information technology/systems evaluation, performance measures and metrics in new economy, technology management, logistics, and supply chain management. He is also the Director of Business Innovation Research Center (BIRC).

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### **Welcome to the inaugural issue of IJBIR**

I am pleased to introduce this inaugural issue of the *International Journal of Business Innovation and Research (IJBIR)*. Global market and operations force companies to rethink about their Business Innovation and Research (BIR) activities and in turn their overall organisational competitiveness. In order to be successful in this global market, organisations should dedicate themselves for effective BIR in a timely and collaborative manner. Towards this end, companies have undergone changes over the years in terms of implementing new BIR strategies, methods and technologies. To provide world-class customer service, advanced BIR management techniques supported by management commitment and good organisational infrastructure, will provide objective means of improving organisational competitiveness. This compels the researchers and practitioners to look at various BIR issues from the perspective of needs, issues and enablers. IJBIR aims to facilitate the exchange of information on the advances in BIR among researchers and practitioners.

IJBIR is a fully refereed journal, generally covering the new developments in theory and applications of business and entrepreneurship innovation strategies, methods and tools to enhance organisational competitiveness. Business innovation significantly contributes to the improvement in enterprise productivity and quality. Innovation and research are integral components of business strategy and success. BIR continue to play an important role in competitiveness. Designing and developing suitable strategies, techniques, tools and models for BIR have become an essential function of researchers and practitioners in a global economy. New strategies, techniques and tools for innovation and research in business will be the main focus of this journal. Companies constantly look for innovative processes and methods to gain a competitive advantage. Unfortunately, the assets and ideas in organisations are not fully utilised to improve the value of the organisation. Organising a process to take advantage of information technology and systems for business innovation should be part of every organisation. One of the largest unrealised opportunities in organisations today is fully leveraging ideas and knowledge to transform business processes into continuing innovation. IJBIR will act as a platform to encourage further research in BIR.

The main objective of the journal is to promote research and application of new strategies, techniques and tools of business innovation and in turn the organisational competitiveness in the new economy and society. IJBIR aims to help professionals working in the field of BIR, academic educators, industry consultants, and practitioners to contribute, to disseminate and to learn from each other's work. Global dimension is emphasised in developing appropriate strategies, tactics, operational policies and tools for BIR. IJBIR aims to act as a forum for exchanging new ideas and sharing practical experiences in managing and improving BIR activities.

This inaugural issue of IJBIR contains 12 articles discussing a wide range of issues dealing with BIR issues. While no unifying theme for the articles exists, each makes a unique contribution to the extant literature in the field. A brief overview of the 12 papers is provided below.

The competitive advantage of companies that successfully develop new products globally lies in their ability to effectively manage knowledge across national boundaries. When it comes to global innovation, it is the dynamic creation, accessing and transfer of knowledge – explicit and tacit – that makes the difference between success and failure. Yet, there is a limited understanding of how global firms create, access and transfer knowledge that is scattered worldwide to innovate in their product development process. Based on the findings from a two-year investigation of the global product development effort of an international organisation, McDonough III *et al.* in their paper, 'Networking for global new product innovation' suggest how social networks are used to manage complex interdependencies and create social capital that is leveraged to access knowledge critical to global innovation.

Trade liberalisation and changes in the IPR have fashioned new dynamics in the pharmaceutical industry across the globe. Firms are forced to bring changes to their research, innovation, technology and marketing practices by a reconfiguration of their competencies and resources. The most common strategic concern that Trade Related Aspects of Intellectual Property Rights has raised for Indian firms is the perceived need for R&D and technological strength. For firms that have given little attention to research and innovation in the past, this transition is very difficult. Indian firms have responded to these changes in novel and complex ways. Employing firm-level case studies, the paper, 'Strategic integration of knowledge in Indian pharmaceutical firms: creating

competencies for innovation' by Chaturvedi and Chataway examines the contemporary strategic approaches adopted by Indian leaders for integrating new knowledge and capabilities in order to develop innovation competencies for tomorrow. Using empirical evidence from firm-level investigations, their paper shows how Indian firms are evolving from reverse engineering outfits catering to domestic market to technologically advanced and sophisticated organisations capable of catering to diverse markets.

Many organisations are increasingly searching for innovative processes and methods to achieve competitive advantage and to more fully take advantage of what they have in order to improve. Foulds and West in their article, 'Innovation of e-procurement: a case study' demonstrate this in a particular company that investigated how to improve its e-procurement processes through business innovation. Specifically, they describe how the e-procurement process can be improved by taking advantage of information technology and systems for business innovation. They explore the possibility of applying Project Management (PM) principles in order to enhance e-procurement. An understanding of the issues involved has been gained through a case study of Motorola China Inc., which has implemented a fully functional e-procurement process since 2002. Their findings establish the potential benefits, feasibility, and utility of applying PM technology as a way of enhancing the existing e-procurement process. The case study also indicates that the existing planning, reporting and database management systems are likely to enhance the PM process.

Yamin and Tanas in their paper, 'Entrepreneurial education in Poland for the new millennium: a social capital perspective' examine entrepreneurial education from a social capital perspective. They first reviewed the extant literature in both social capital and entrepreneurial education. A more philosophical approach is undertaken to determine what entrepreneurship truly means and how the knowledge stream will be delivered to encourage cognition and behavioural development among students. The main thread of the argument is that entrepreneurship is the process of creation of a new business or growing existing business through exploration of new opportunities within or outside the existing market space. In order to achieve this objective, nations and institutions have to invest not only in the education system but also in the overall development of social capital. They argue that social capital is one of the primary resources that need to be developed in order to achieve success from pedagogical initiatives of entrepreneurship. The role of a knowledge economy dictates fundamentally different aspects of human behaviour and talents. Thus, it is encompassing on both the policymakers and educationalist to develop curriculum that assists in developing and propagating critical analysis as a means of instruction and education. In order to further the growth of human talents, educational policies should initiate such pedagogical changes throughout the early school years and beyond. This is paramount for successful transition into entrepreneurially oriented society. A conceptual model is developed in light of current pedagogical and social capital theories, and recommendations are made for both educational and institutional bodies; a policy paradigm is also suggested for making such changes effective.

Srinivasan *et al.* in their paper, 'A generic framework for analysing product cannibalisation' develop a generic framework for analysing product cannibalisation. Although the factors affecting product cannibalisation in mature product portfolios have been well studied, issues regarding the performance of a new product and its impact on an existing product portfolio have not been addressed in the context of cannibalisation.

Since it is critical to be able to estimate the impact of a new product on other products in the product portfolio, this paper presents a descriptive model to discuss the issues associated with product cannibalisation, specifically the impact of new product introduction on an existing product portfolio. The product portfolio model and the different quantitative measures that can be used to understand the impact of new product introduction are discussed, along with a case study to illustrate the cannibalisation indicators developed in their research. The model can then be used along with quantitative methods in strategic decision-making regarding the introduction of new product/product families.

The paper, 'Integration TRIZ with problem solving tools: a literature review from 1995 to 2006' by Hua *et al.* surveys Theory of Inventive Problem Solving (TRIZ) integration into other creativity tools, methods and philosophies using a literature review of publications from 1995 to 2006. After explaining the motivation of the integrations, a categorical analysis is carried out on how TRIZ has been integrated with these tools based on publications of combining TRIZ with design problem-solving tools. The applications of the integrations in different industries are summarised, and possible future directions are also presented. Their research can satisfy the needs of researchers and practitioners for easy reference of TRIZ and problem-solving tools, and hence promote the future development of TRIZ.

Whereas conceptual guidelines exist to identify where along a continuum of market emergence a country may fall, researchers need a quantitative tool with which they can better delineate countries into the existing groupings. The paper, 'A path to mature market: logistic regression approach to delineate between emerging, transition and developed markets' by Khan *et al.* incorporates economic theory and the World Bank view to extract the defining factors (financial liberalisation, trade liberalisation, privatisation and entrepreneurship) of market emergence. An empirical logistic regression is then constructed to determine which factors play the most significant role in delineating countries into the emerging, transitional and developed markets. The model refines existing knowledge of the significance of the defining factors in delineating between the country groupings studied, and provides a clear instrument with which to better understand a country's path to the global market emergence. Their study results indicate that financial liberalisation is strongly (statistically significantly) related to the emerging market, and trade liberalisation is related to the transitional market, while the developed market is strongly influenced by the financial liberalisation and the degree of entrepreneurship.

Kim in his paper, 'A cultural artefact "show-and-tell": a paedagogical tool for teaching cross-cultural management' developed a paedagogical tool for an international management course of which the concept of country culture was a prominent element. Each team (or each individual, if teams are not utilised) identifies and brings to class a cultural artefact that represents the culture of the team's assigned country in significant and meaningful ways. It then makes a short presentation to the class on – (a) what the artefact is, (b) what beliefs and values it portrays, and finally, (c) what underlying assumptions are associated with it. His project is a small 'teaser' project in that it 'teases' students into a bigger main project for the course. Students often postpone 'getting their feet wet' for the main project, because they are overwhelmed by the project's open-ended nature and by the substantial reading and research needed. It is a very useful little tool in that it helps the students to rather painlessly get started earlier on the main project in the academic term than they otherwise would.

Quality Function Deployment (QFD) provides a systematic approach to product enhancement and has been widely implemented in modern enterprises. Despite its wide implementation, however, customer dissatisfaction continues to be an issue in QFD-designed products. This is mainly a result of the failure in determining correct Technical Importance Ratings (TIRs). To determine customer-oriented TIRs, Yoon *et al.* in their paper, 'Redesigned quality function deployment process to ensure customer satisfaction' propose a method for reflecting the roof and adjusting the strength of the relationship between Customer Attributes (CA) and Engineering Characteristics (EC). The limiting probability of the Analytic Network Process (ANP) was used in the roof, and Extreme Pair-wise Comparison with Median Rank (EPCMR) was used to determine the relationship strength, important ratings of EC, and CA. To illustrate, their paper includes a case study involving the results of a Six Sigma project in a Korean company.

Pornography is the most widely searched topic on the internet today, and is becoming an increasingly controversial topic in society. There are many problems with internet pornography at home, at work and at school, and there are many different solutions that have been attempted. Through research and surveys, Smith has found in his paper, 'Informational exchanges and dynamics of internet pornography in an e-commerce environment', that internet pornography has become an increasing burden and these pornographic sites are finding many new ways to get around the firewalls and blocks that are used by many homeowners, businesses and schools. When dealing with pornography on the internet, traditional wisdom is that most users who visit the sites are predominantly male and mostly visit these websites because of curiosity and societal norms against such material. A sample of professionals in the service industry, representing an educated and web-enabled group found that the traditional assumptions about the visits being male-dominated and driven by curiosity were found to be true. Principal components and factor analyses were used to verify a basic model of the driving forces for the expansive growth of internet pornography. Although it was found that those who tried to block pornographic e-mails used SPAM filters more than any other technology, these filters were not proven to be very effective way of dealing with unwanted pornographic e-mails. In general, internet-based research, in whatever form it takes, is needed at the academic level to eventually develop meaningful policies, practices and procedures in intelligently dealing with internet sexuality and its place in understanding online informational exchanges.

Much of the thinking concerning the role of universities' contribution to industry within the UK has focused upon science research, technology transfer and policy-level deliberations. There is clear evidence that innovation occurs beyond the linear model of university research-led, high technology, product/process innovation, and the role of UK universities within *service* innovation specifically needs to be considered. Sparrow *et al.* in their paper, 'Perceptions of a UK university as a knowledge-intensive business service enhancing organisational and regional service innovation' build upon previous research upon the role that knowledge-intensive business services play in regional innovation. Their paper presents findings from a research on a case study about a UK university. The study explores the perceptions of informed internal and external stakeholders upon the means through which service innovation can be enhanced by the university. The analysis suggests that whilst strategic commitment towards supporting service innovation is necessary, a narrow focus on the means through which such impact can be secured

may be dysfunctional. The study highlights the range of means through which staff can contribute to service innovation and identifies key relationships with the current conceptions of personal identity of academic staff.

QFD is used for translating customers' vague languages into technical languages. Of late, researchers and theoreticians have been contributing advanced QFD models. In this context, Vinodh *et al.* in their paper, 'Design and implementation study of innovation total quality function deployment and its financial accounting system' report a research project, which was begun by adopting a new technique called Total QFD (TQFD). Today's competitive world expects innovation coupled with quality rather than mere technical languages. TQFD may evolve technical languages without containing any innovation. Hence, a new technique named Innovative TQFD (ITQFD) was designed. An exclusive financial accounting system was designed to portray the performance of ITQFD, which is dominated by intangible transactions. The practicality of ITQFD and its financial accounting system were tested by conducting implementation study in an electronic switch manufacturing company and substituting the data on ITQFD's projected performance. The results of statistical tests on the feedback data indicated the practical validity of the frameworks and models developed in this research project.

### **Invitation to IJBIR**

IJBIR is a refereed journal that acts as a forum and source of information in the field of BIR functions. IJBIR proposes and fosters discussion on the development of BIR principles, tools, systems and methods with special emphasis on the applications of BIR techniques and tools in improving the organisational productivity and competitiveness in global markets. The importance of effective BIR strategies, tools, techniques and practice in global markets and operations cannot be underestimated for organisational effectiveness and competitiveness.

The journal publishes original papers, review papers, conceptual framework, analytical and simulation models, case studies, empirical research, technical notes and book reviews. Special issues devoted to important topics in BIR will occasionally be published. BIR strategies, tactics and tools of both theoretical and practical nature are welcome. Articles that deal with innovation and research issues in accounting and finance, marketing, management information systems, organisational management, operations, supply chain, logistics, government, entrepreneurship, business infrastructure development, ethical and environmental laws and standards, health services, international business, manufacturing, education, energy, mining, sports and transportation are encouraged for IJBIR.

The topics that would be considered for publication in IJBIR are (but not limited to) the following:

- Business research methods
- Innovation in finance and accounting
- International business
- Strategy innovation
- Business research for decision-making

- Innovation and research in marketing
- Buyer behaviour
- Global supply chain
- Export and import
- Organisational competitiveness
- Innovation in small and medium enterprises
- Empirical analysis and case studies in BIR
- Business process reengineering
- Benchmarking and best practices in innovation activities
- Role of IT/IS in BIR
- Corporate social responsibility and consumer behaviour
- Organisational learning in innovation and brand performance
- International finance
- Performance implications of strategic alliances
- Performance measures and metrics in BIR
- Retailing
- Innovation in outsourcing and logistics
- Entrepreneurship and innovations in e-business
- Building relationship for technological innovation
- Global supply networks
- Innovation in service industries
- Industrial marketing management
- Business of healthcare innovation
- New product and process innovation
- Seafood supply chain
- Business and technological innovation
- Innovation in organisational leadership
- Managing creativity and innovation
- Designing IT for business innovation
- Innovation management in global environment
- Real estate business innovation
- Knowledge management and technology transfer
- Business law, ethics and environmental standards.

Academics and practitioners are invited to forward their contributions in BIR areas for possible publication in IJBIR. The journal also encourages papers on industrial experience or on the development and implementation of BIR strategies, tools and techniques. Potential editors are welcome for guest editing special issues in emerging areas of BIR. Please direct all your communication to the Editor-In-Chief (agunasekaran@umassd.edu).

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