

# Newsletter

of the Research & Publications Committee, IIMA



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## Abstracts of Articles

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### Design and Application of Risk Adjusted Cumulative Sum for Strength Monitoring of Ready Mixed Concrete

*Journal of Construction Engineering and Management*, 136, (6), (June 2010), 624-631.

**Debasis Sarkar and Goutam Dutta**

The cumulative sum procedure is an effective statistical process control tool that can be used to monitor the quality of ready mixed concrete during its production process. In this paper, an attempt has been made to design and apply a new cumulative sum procedure for the ready mixed concrete industry, which takes care of the risks involved in and associated with the production of concrete. This new procedure can be termed as risk adjusted cumulative sum. The 28-day characteristic cube compressive strengths of the various grades of concrete and detailed information regarding the production process and the risks associated with production were collected from the operational ready mixed concrete plants in and around Ahmedabad and Delhi, two important cities in India. The risks were quantified using a likelihood-based scoring method. Finally, a risk adjusted cumulative sum model was developed by imposing the weighted score of the estimated risks on the conventional cumulative sum plot. This model is a more effective and realistic tool for monitoring the strength of ready mixed concrete.

### Leapfrogging the Digital Divide - Myth or Reality for Emerging Regions?

*International Journal of Information Communication Technologies and Human Development*, 3, (4), (2011), 17-30.

**Kavitha Ranganathan**

The leapfrogging theory claims that instead of following the conventional digital trajectory set by the west, emerging regions can straightaway use cutting-edge technology to "leapfrog" the digital-divide. To explore the possibility of digital

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leapfrogging by an emerging region, this study looks at the three domains of hardware, software and connectivity. In each domain the default technology and its potential is evaluated as a digital inclusion tool while being juxtaposed with the latest “cutting-edge” alternative that could be used instead for “leapfrogging”. Three specific scenarios are developed in telephony, banking and the World Wide Web, which illustrate how a combination of these different technologies help emerging regions ‘leapfrog the digital divide.’ Finally, the paper suggests certain leapfrogging trajectories that ICT4D projects should explore.

### **The Luxury Roundtable: Does the Luxury Business Need a Rethink?**

*Vikalpa: The Journal for Decision Makers*, 36, (1), (January - March 2011), 73-74.

#### **Piyush Kumar Sinha and Ashok Som**

This is the first luxury Roundtable of the country and probably of the world. Four years ago, in the 25th year of strategic partnership between the Indian Institute of Management, Ahmedabad (IIMA) and the ESSEC Business School, Paris, we came up with the idea of doing something different and new in the field of luxury management in India. ESSEC Business School has been the leader in luxury education for the last 15 years. The recent economic downturn has proved very clearly the importance of emerging economies in the business of luxury. This timely joint programme, which started in 2008, focuses on luxury education in two continents, Europe and Asia; two countries, France and India; and two cities, Paris and Ahmedabad. Therefore, although the Advanced Management Programme in luxury essentially happens one week in France and one week in India, more particularly in Paris and Ahmedabad, the learnings from the programme can be generalized for almost all the emerging countries.

The programme throws light on how to do business in the more developed countries. While two countries are looking at two different contexts, the learning from the programme is applicable across the world and to all kinds of product categories. From that perspective, we are essentially domain-agnostic and country-agnostic. Considering the requirements and the new challenges faced by the companies in this sector in India, the focus is on India. In fact, today we are emerging; ten years from now we may be emergent and France may then be an emerging economy. The whole programme is therefore designed from that perspective. What we found was that even ten days of interaction with the participants of the programme, who were from the industry, was not actually enough. Therefore we decided to create a platform where people could meet more frequently. Our initial target was the alumni but in order to add value to our joint efforts, we thought of involving the industry also. Our gut feeling led us to believe that we could take home key lessons from a discussion-based conference that threw light on the perception of luxury industry in the world and specifically in India. The discussion could lead to personal experiences and a mix of academicians and practitioners could bridge the gap of knowledge creation in the luxury business.

For this Roundtable, we picked up some key issues on for discussion. Do we look at India as a luxury market? Have we really undergone a change? What have we learnt from all the experimentations that have happened over the last two years? From here onwards, do we really take a jump? Are we in a different orbit of luxury market today as compared to what we were two years ago? The answer seems to be definitely ‘Yes,’ but it is not a clear and simple ‘Yes.’

This Roundtable is meant to concretize some of our thoughts on the luxury market.

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## Perceived Organizational Support and Organizational Commitment: The Mediation Influence of Psychological Well-being

*Journal of Business and Management*, 16, (2), (2010), 105-124.

**Meenakshi Aggarwal-Gupta, Neharika Vohra and Deepti Bhatnagar**

The relationship between individual and organization was explored by examining the influence of perceived organizational support (POS) and psychological well-being (PWB) on organizational commitment. 513 managers working in two large Indian manufacturing organizations were administered standardized measures of POS, PWB, and OC measuring affective commitment (NC), normative commitment (NC), high sacrifice (HiSac), and low alternatives (LoAlt). Regression analysis revealed that POS significantly influenced psychological well-being and all components of organizational commitment. PWB was found to have significant association with AC, NC, and LoAlt. Mediation analysis revealed partial mediation between POS and AC, and POS and NC, and full mediation between POS and LoAlt. A post hoc analysis was carried out to understand the impact of different dimensions of psychological well being on organizational commitment. The implications of the findings are discussed.

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Abstracts of

# Cases

registered with the Case Unit



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## ICICI Equity Issue 2007

Case Registration No. and Date: F&A0488, 13-10-2010

**Sobhesh Kumar Agarwalla, Joshy Jacob and Jayanth R.Varma**

The case discusses the choices relating to seasoned equity issuance for ICICI Bank, one of India's largest banking and financial services conglomerates, in mid 2007 shortly before the global financial crisis begins to unfold. In this context, the case raises issues about the size and timing of equity issuance. It also highlights reliance on external finance for large rapidly growing companies in emerging markets. The bank which operates in 17 countries and is listed in India and the United States also needs to decide whether part of the new equity should be raised in foreign equity markets.



## The Institute Management Committee, Government Industrial Training Institute, Aurangabad

Case Registration No. and Date: RJMC0012, 26-07-2010

### Vijaya Sherry Chand

The case deals with the Institute Management Committee (IMC), a new management mechanism that has been introduced in Industrial Training Institutes (ITIs) which have been upgraded to Centres of Excellence (COE). This body now provides policy direction to ITIs with COEs. The IMC at ITI Aurangabad has been instrumental in creating opportunities for the staff and students. The case examines its roles and responsibilities, and the various factors which promote or hinder its functioning. It also presents the viewpoint of ITI officials who want to improve the effectiveness of the partnership between industry members and institute staff.



**Vijaya Sherry Chand** is Professor at the Ravi J. Matthai Centre for Educational Innovation. His areas of academic and research interest include Practices of Innovative Teachers, Teacher Development/Networking, Educational Attainment, Ecological Knowledge of School Children, Decentralized Management of Basic Education, Literacy, Sustainable Development, Social Communication, and Social Entrepreneurship.

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## PetMate and ClearOrbit/TSC

Case Registration No. and Date: PROD0294, 30-08-2010

### N. Chandrasekaran and G. Raghuram

The top management of TAKE Supply Chain (TSC) was preparing for a meeting on evaluation of upscaling at PetMate, one of their key customers. The focus was on impressing solutions architects and the presales group on increasing their scope of supply chain solutions to PetMate. Earlier TSC was ClearOrbit, a supply chain software product company, later branded as TSC after its acquisition by Chennai based TAKE Solutions Ltd (TSL). TSL was promoted as a supply chain integrator and later transformed into a software product and solutions company. ClearOrbit was to be the engine of growth for TSL in the supply chain domain. Experiences of ClearOrbit in the US market were to be adopted by TSL for the rest of the world.

PetMate was in the business of manufacturing and distributing a large range of non-food products for pets. There were many supply chain challenges due to large variety, sourcing from contract manufacturers, supplying to large general and speciality retail, providing for own and store brands etc. TSC was keen to demonstrate proof of enhanced customer engagement with PetMate.

## Use of Technology and Beyond: Creating Euroshare for Knowledge Management at Eureka Forbes 2002-2004

Case Registration No. and Date: BP0337(B), 31-03-2011

### Sanjay Verma

This is the second case from a three cases series. From 2002 to 2004 Eureka Forbes Ltd. (EFL) takes a series of technology initiatives to implement Knowledge Management (KM). The initiative is partially successful and the KM team still has many challenges. A small percentage of sales people were on Knowledge Network. What direction should KM take now to attract everyone on the network? Should it continue its focus on information technology or make some shifts in its strategy?

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**G. Raghuram** is Professor in the Public Systems Group. His areas of research interest are Infrastructure and Transportation Systems, and Supply Chain and Logistics Management.

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# Abstracts of Book Chapters

authored by IIMA Faculty



**Rajanish Dass** is faculty in the Computer and Information Systems Group. His primary research and teaching interests are in the areas of Strategic Information Systems, IT Policies of Organizations, Technology Impact on Society, Competitive Intelligence and Data Mining. He also works on current issues of e-Governance in India and has a keen interest in the evolution of the Indian IT industry.



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**Sujoy Pal** is a Research Assistant at IIMA.

## **Feasibility and Sustainability Model for Identity Management**

In *Digital Identity and Access Management: Technologies and Frameworks*, edited by D.R. Sharman, D.S.D. Smith and D.M. Gupta. IGI Global, 2011, 64-77.

### **Rajanish Dass and Sujoy Pal**

National identity projects in various countries around the globe, which manage unique identification of citizens, have captured attention of late. Although the perceived benefits in terms of public administration are numerous, the challenges and bottlenecks for a successful rollout are also many. The objective of this chapter is to identify the drivers and inhibitors for adopting a common identity management system across various organizations for public administration and to suggest a model for determining the feasibility and sustainability of such a system. We reveal the various factors affecting successful implementation of the system and the probable impact of these factors. The model suggested would allow public organizations and policy makers to determine the critical factors for the implementation of an identity management system on a large scale.



# Spotlight

on research seminars presented by faculty and visiting scholars at IIMA



## On Fractile Regression Probal Chaudhuri

The need for comparing two regression functions arises frequently in econometric and other statistical applications. Comparison of the usual regression functions is not very meaningful in situations where the distributions and the ranges of the covariates are different for the populations. For instance, in econometric studies, the prices of commodities and people's incomes observed at different time points may not be on comparable scales due to inflation and other economic factors. P. C. Mahalanobis, in his famous paper on Fractile Graphical Analysis (*Econometrica*, 1960) introduced a plethora of new statistical concepts and techniques to compare two regression functions in such situations. We discuss and reinterpret some of his work, highlighting his contributions and some of the difficulties encountered. We discuss a few real examples that illustrate the difficulty in comparing the usual regression functions and motivate the need for the fractile transformation. Our analysis of the real examples using fractile regression leads to new insights and statistical conclusions, which are of relevance to econometricians. (This is joint work with Bodhisattva Sen of Columbia University, New York, USA).

For video coverage of the seminar, click the links below:

<http://www.iimahd.ernet.in/randp/randpvideos/index1.php?videoname=probal1>

<http://www.iimahd.ernet.in/randp/randpvideos/index1.php?videoname=probal2>

<http://www.iimahd.ernet.in/randp/randpvideos/index1.php?videoname=probal3>

## Optimal Response to a Next Generation New Product Introduction: To Imitate or to Leapfrog?

### D. Sudharshan

In the talk, he shall first focus on the key results of a paper (co-authored with Ben Liu and Brian Ratchford). In the paper, their study of the choice of technology levels and timing of the introduction of new technologies in a market in which customer sophistication increases over time. Faced with the introduction of a new generation product, a firm can either imitate or leapfrog it. If the new product is introduced optimally, we show that the optimal response is to imitate it. This is because the technology leader's best strategy is to set a technology level that makes imitation the best response. Some real life examples appear to support our analytical results. The paper introduces the modeling of customer sophistication into diffusion models and builds a game theoretic analysis of the product introduction race that includes the evolution of customer sophistication.

Second, he shall provide some key results from analyzing interesting questions such as what is niching and how can it be accomplished? Can they model the emergence of segments and then what? He shall then present and discuss some open questions in Marketing Strategy, in particular the organizational structure needed to manage global enterprises in the emergent global demographic distribution.

For video coverage of the seminar, click the links below:

<http://www.iimahd.ernet.in/randp/randpvideos/index1.php?videoname=dsudharshan>



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