# CONTRIBUTED PAPERS

### SB1, Sunday, June 28, 11:30 a.m.-12:30 p.m. Room 1218

Session: Decision Models Session Chair: Santiago Castro Varela Cogentus Consulting Ltd., UK

### 9044 The Role of MIS and DSS in Manager's Decision Making Process

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In today's business world, there are varieties of information systems such as TPS, DAS, KWS, MIS, DSS, ES, CSCWS, GDSS and ESS. Each plays a different role in organizational hierarchy and DMP. In this article the authors have selected two main information systems, namely, MIS and DSS. After discussing the DMP based on each concept, its characteristics, relations, connections of each concept to decision-making process have been determined. At the same time, different models and figures are presented to enrich the discussion and to highlight precisely the status of each MIS and DSS information system in organizational decision making.

### 9121 Decision Making Pattern among Young Engineers

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Rational individual decision making in any environment, is a research paradigm. This study captures and examined, latent individual decision making patterns among 324 young engineers, using 101 partially disguised questions. Factor analysis, by Principal component method resulted in 15 decision making patterns with variance of 75.681%. Ethical decision making pattern emerged with the highest composite computed mean of 4.13. Correlation matrix revealed, high positive correlation (PEARSON=0.55, Sig.0.00) for consistent and revive decision making, followed by a high positive correlation (PEARSON=0.43, Sig.0.00) for participative and consensus decision making. Young engineers prefer ethical decision making pattern among other patterns.

### 9711 Exploring a New Dimension of MCDA to Model the Market Space

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This article shows that, when combining with advanced software technologies, Multi-Criteria Decision Analysis (MCDA) becomes a very powerful methodology to represent strategic situations comparing various competitors' performances in all key market factors. In addition, modern software functionalities enables us to capture different points of views of all stakeholders. Enhanced scenario simulation capabilities facilitate testing hypothesis, building common understanding, learning and adapting to change as creativity is stimulated. In that sense this article suggests a new scenario approach, which is more about creative thinking rather than purely normative assessment of options, or future oriented forecasting of scenario planning.

### SB2, Sunday, June 28, 11:30 a.m.-12:30 p.m.

### **Room 1222**

### Session: Strategy Management Session Chair: Santanu Roy

### Institute of Management Technology. Ghazibad, India

### 9132 Developing Agri-Preneurs to Improve Agriculture Economy

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Indian economy is growing at more than eight percent for the past several years but growth rate of agriculture is stagnant around 2 percent. The income of the farmer can be increased by two ways: (a) Through cultivation of high value crops in place of traditional crops, (b) Adding value to the agri-produce through grading, packing and or processing. The objective of the present study is to develop a detailed and clear picture about the small and medium agro-processing systems, their requirement to effectively manufacture and market processed products and to review agro-processing service provision, research and extension linkages.

### 9707 A Comparative Study of Critical Success Factors (CSFs) in Implementation of ERP

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To explore the differences of critical success factors (CSFs) of ERP implementations in developed and developing countries base of the review of literatures and the quantity of reappearance of CSFs in different resources, prepare a compilation, and identify any gaps that might exist. A lot of articles were searched using key terms identified in a preliminary literature review. Since, the review of these articles 20 articles selected for the compilation. In this study, articles from different resources were identified, analyzed, and classified. Since, researchers tried only focus on the CSFs for the implementation of ERP. Despite the paucity of related research in most developing countries but we can anticipate in most CSF these countries are similar. It is found that a few factors like "Appropriate business and IT legacy systems", "Country-related functional requirements", "National culture" and "Fit between ERP and business/process" are much important than developed countries. This research provides a compilation of all previously identified ERP implementation success factors, through a clearly structured methodological approach. Article type is literature review.

### 9046 Credit Crunch in Thailand After the Economic Crisis: Myth or Reality?

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It is widely speculated that Thailand witnessed a credit crunch situation after its severe economic crisis in 1997. In this paper, we study the prevailing dispute regarding the existence (or lack of it) of credit crunch after the 1997 economic crisis. The results of the analysis using both macro- and micro-level data do not support this existence. The micro-level data include 14 industries listed under the Stock Exchange of Thailand. The results show that credit extension just changed its form from short term to long term. Both exporting and non-exporting industries had similar patterns in this regard. This paper recommends revision of leverage studies that were based on assumption of existence of credit crunch in Thailand.

### 9105 Manpower Modelling in an Industry Setting: A Case Study from India

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India is emerging as one of the biggest markets for offshore services. Business process outsourcing (BPO) is the delegation of one or more information technology (IT) intensive business processes to an external provider that, in turn, owns, administrates and manages the selected processes based upon defined and measurable performance metrics. Offshore outsourcing is an umbrella term covering a range of IT and business services delivered to companies in developed countries by personnel based in developing countries. Though Indian outsourcing industry is growing, the attrition rate is also rising in this sector. So is the backlash against outsourcing. In order to survive and grow in this scenario, Indian firms must ensure that their services are not only cost-effective but also qualitatively superior. The present study probes into these issues. The study aims to explore the structure of manpower sector of business process outsourcing industry in India through the methodology of system dynamics. A system dynamics model has been developed, validated and simulated over time to understand the trends that characterize this industrial segment. The implications of the results of the study are discussed.

### SD1, Sunday, June 28, 2:45 p.m.-3:45 p.m.

### **Room 1218**

### Session: Financial Models Session Chair: *Tanuj Nandan*

### Motilal Nehru National Institute of Technology, Allahabad, India

### 9133 Credit Period as a Tool for Supermarkets/Hypermarkets

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The benefit of large number of customers in Supermarket/Hypermarket is coupled with the synergy of Financial Management. This paper investigates the impact of obtaining an extended Credit Period form the manufacturer on grounds of huge purchase orders on the sales and financial performance. Analyzing how this credit period is used as a tool in working capital and used in pricing as strategy of management to influence the sales(push). The research shows that there is a scope for a Financial Model that can give a positive impact with proper utilisation on the scale of operation and customer base.

### 9503 Empirical Evidence of Abnormal Stock Returns: The January and Size Effects

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The purpose of the present study is to provide further empirical evidence of the January and size effects on abnormal stock returns. The data used in this study are monthly stock returns, shares outstanding, and prices of all the stocks listed on the NYSE, AMEX, and NASDAQ. The data of monthly stock returns, shares outstanding, and prices of all the stocks listed on the NYSE are from January, 01, 1959 to December 31, 2007. The data of the stocks listed on the AMEX are from January, 01, 1962 to December 31, 2007. The NASDAQ's data are from January, 01, 1971 to December 31, 2007. The findings confirm the January and size effects on abnormal returns reported in the previous studies.

### 9127 Analytics in Financial Service Sector - Decision Sciences Trends and Challenges

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Globalization and advancement in Information and Communication Technologies have paved the way for rapid growth in decision science processes. Businesses in the developing world are increasingly relying on predictive analytics, an area of statistical analysis that deals with extracting information from historical data and uses it to predict behaviour patterns and future trends. When applied to the financial service sector, it assists decision making towards the enhancement of businesses value by providing an objective basis for evaluation of risks. This paper aims at assessing and exploring trends and analyzing challenges to its application in the financial service sector.

### SD2, Sunday, June 28, 2:45 p.m.-3:45 p.m.

### **Room 1222**

### Session: Operations Management Session Chair: *Tapan Bagchi*

### Vinod Gupta School of Management & IEM, Kharagpur, India

### 9102 A Deteriorating Inventory Model for Demand Declining Market under Inflation and Trade Credit

*Nita Shah*, Gujarat University, nitahshah@gmail.com *Nidhi Raykundaliya*, Gujarat University, nidhiray@gmail.com

This article discussed the ordering policy by a vendor of a deteriorating product where the decision is influenced by decreasing demand of the product, the time value of money, inflation and allowable credit period. Depending on the length of the payment period, the vendor can earn interest on the revenue generated by the sale of the product. The optimizing present value of the total cost is the objective function. The effects of deterioration rate, inflation and decreasing demand rate on decision variable and objective function are studied.

### 9117 A Research Study on "Impact of Six Sigma on Selected Key Performance Indicators

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Any new concept/Methodology/tool must have its own merits and demerits but the professionals must maximize the merits and minimize the demerits, which are known as optimization of resource utilization. Executives who are dealing with the new concepts such as Six Sigma should know the positive and negative impacts, on all Key performance indicators; hence the author had conducted a research study and made the following observation: With the implementation of Six Sigma 13.46% of average turnover growth rate increased to 18.27%; 9.15% of average wastage & rejection reduced to 5.24%; 1.604% of average machine breakdown reduced to 0.48%; 14.03% of average net profits increased to 18.08%; 61.64% of point rated employees' benefits increased to 85.42; 56.01% of point rated customers' benefits increased to 76.56%; 39.77% of point rated Government & Society benefits increased to 47.46%; 55.25% of point rated overall benefits increased to 74.45%; It proved through 9 tests of hypotheses that the Six Sigma has significant positive effect on manufacturing companies. As the Six Sigma contributing significantly to the Indian manufacturing Industry Growth, the researcher would like to suggest the Government of India to encourage the companies to implement Six Sigma. The detailed conclusions are given in full paper.

### 9114 Defect Reduction by Six Sigma: Quantifying hidden costs in Bearing Production

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Bearings are precision products. Their correct manufacture and assembly greatly affects their efficiency, utility and life. Mass-produced, bearings extend a special challenge for applying modern quality assurance tools, from Gage R&R, ISO standards, sampling, and SPC to Six Sigma DMAIC. For DMAIC, however, it is imperative that besides the obvious, the hidden production costs be identified and sized—to justify costly interventions such as variance reduction. This paper reviews the practices in bearing production and assembly and then develops methods to quantify hidden losses in such processes. Statistical models, numerical methods and simulation are used. Thus, targeting beyond scrap and rework, this paper exercises effective analytical methods to quantify hidden incentives to help justify variance reduction in manufacturing.

# SE1, Sunday, June 28, 4:15 p.m.-5:15 p.m. Room 1218 Session: Marketing Session Chair: Ajay Gor Pramukhswami Science & H.D. Patel Arts College, Kadi, India

### 9109 Application of 'Bank Account Method' to Understand Responses of Toursist Design

Milind Fadnavis, Institute of Management Technology, Nagpur, milind.fadnavis@gmail.com

Lonar Crater – 3rd largest in world and only of its kind in entire Asia (Maharashtra-India) is poorly marketed /visited by handful tourists. In this paper – qualitative marketing research tool of Bank Account is being used to understand values assigned by tourists – which are categorized = fixed –cannot be changed ,Savings – can be changed – Current – easily manipulated and Loose Cash – incidental to product /service. On basis of the discussion, it was found that crater can be aggressively marketed provided values from saving ,current account can be changed.

### 9506 Free In-Network Pricing as Entry-Deterrence Strategy

Tingting He, University of Wisconsin-Milwaukee, he2@uwm.edu

This paper aims to explain the emerging popularity of free in-network calling plans among telecommunication companies. The results indicate that in a competitive setting (1) without the threat of entry, two-part tariffs should be a natural outcome, while (2) with the threat of entry, free in-network calling plans alone, or free in-network calling plan together with two-part tariffs or flat-fee plan can deter entry, and (3) flat-fee plans cannot deter entry without free in-network calling plans. Thus, it seems that increased competition and threat of further competitor entry may be explaining the observed pricing strategies of telecommunication companies.

### 9955 Innovation in Talent Transformation in Banking, Finance & Insurance Sectors

Rajesh Arora, Alkesh Dinesh Mody Institute for Financial and Management Studies, director@admi.mu.ac.in

The financial year for Indian Business environment 2009-2010 will face impact of globalrecession and high volatility in equity, commodity and bullion markets. It won't be surprising if there is a marginal contraction of GDP growth with high impact on our economy. The repercussion on each and every individual who contribute directly or indirectly to theeconomy cannot be underestimated. Contracting business and market scenarios are forcingcompanies to review resources, productivity & efficiency.

### MA1, Monday, June 29, 10:00 a.m.-11:00 a.m. Room 1857

Session: OR/MS Models Session Chair: Sanjeevaiah C. Bangalore University, India

### 9104 Risk Models for Software Development with Imperfect and Incomplete Testing

Tapan Bagchi, VGSOM, IIT Kharagpur, bagchi@vgsom.iitkgp.ernet.in

This study analytically assesses the statistical risk of releasing defective software that cannot be exhaustively tested, and of needlessly testing defect-free software. Specifically, it quantifies the probability of committing Type I (a) and Type II errors (b) in software development when one may release software that still is faulty or do needless testing since the test methods themselves may not be perfect. The study uses Truncated-Poisson and geometric distributed path lengths and Bernoulli-type inspection errors to link a and b to software design features, the development philosophies employed, and certain aspects that include code quality, cyclomatic complexity and the average length of basis paths. For risk reduction this study finds quantitative justification for raising test coverage, perfecting the test methods, the adoption of recent innovations and programming methods such as component-based design, SOA and XP as ways to raise the likelihood that the product developed will be fault free. Results are relatively robust with respect to the probability distributions assumed.

### 9120 Validation of Factors for Predicting Success in MBA Program: A Regression Model

Sanjeevaiah C, Bangalore University, dhimanth@gmail.com

The current economic scenario has led to an increase in the number of students seeking admission to MBA program across Indian B-schools. Identifying potential students is a critical decision. The admission criterion is dependent on a variety of factors. This paper uses a two-factor approach using multiple regression analysis to predict academic success. Analysis is carried out to predict academic performance. Aptitude test score and graduate-level percentage emerged as significant factors impacting successive performance. This technique can serve as a valuable decision tool for identifying students who are likely to be successful in the MBA Program.

### 9601 A Utility Theory Based Method for Player Selection

Wu Hsun Chung, The Pennsylvania State University, wuhsunchung@gmail.com Gül E. Okudan, The Pennsylvania State University Richard A. Wysk, The Pennsylvania State University

A team game is a highly uncertain activity as the performance of players in the game is uncertain. For a coach, player selection to maximize wins is an important problem. The coach's preference for a player will be impacted by his/her tactics for the game, and it can be seen as his/her attitude to risk in the game. In addition, the performance of players may be not steady over time. This paper proposes a utility theory based method which integrates a coach's preference and players' uncertain performance to select the best player from possible candidates.

### MA2, Monday, June 29, 10:00 a.m.-11:00 a.m. Room 1858

### Session: Teaching and Learning Session Chair: K. Y. Shinde

### Siddharth College of Commerce and Economics, Mumbai

### 9511 Skill Scrabble: A cooperative learning pedagogical tool for student teams

Arvinder Loomba, San Jose State University, loomba a@cob.sjsu.edu

In today's learning institutions, students from various ethnicities, work experiences, and academic preparation, are juxtaposed in the same classroom setting. While this gets high points for diversity, it does lead to varying rates of learning among students when traditional pedagogical approaches are employed. We offer a cooperative learning tool called Skill Scrabble, which let students become experts on discussion topic in their teams. This makes all students' contribution indispensable to the overall success of their respective teams thereby instilling sense of high self-worth, achievement, and successful teamwork. We discuss the tool and pedagogical implications.

### 9512 A Modest Proposal for a School of Business Statistics Course

Elizabeth Haran, Salem State College, eharan@salemstate.edu

Problems in teaching statistics are well documented. The way courses were taught, and what was taught, was subjected to scrutiny and recommendations from most notably the "Making Statistics More Effective in Schools of Business" conferences (Love 2002); the GAINSE College Report, 2005. These called for: focus on statistical thinking, as well as literacy; active learning; use of real data; and use of technology, among others. Changes have occurred, (Lawrence 2004) however no documentation has been found on the integration of the recent, growing field of Business Intelligence applications into the course. This study addresses that possibility.

### 9123 Emerging Trends and Challegnes in Teaching Methodology of Management Sciences

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The purpose of this paper is to evaluate the contemporary methods of teaching and to suggest other useful teaching methods that can be attempted in imparting knowledge to the students. Any methods that serve the purpose of imparting knowledge without destroying the objective could be considered as innovative methods of teaching. The purpose of education is not just to make a student literate but to develop in him rationale thinking and decision making. An attempt is made in this paper to examine the emerging trends and to explain future challenges in both for teaching and practice of management sciences

### MC1, Monday, June 29, 2:30 p.m.-3:30 p.m. Room 1857

## Session: Supply Chain Management Session Chair: *Mrinalini Shah*Institute of Management Technology, Ghaziabad, India

### 9103 A Joint Strategy for Vendor - Buyer Deteriorating Inventory System

*Ajay Gor*, Pramukhswami Science & H.D. Patel Arts College, ajaygor@yahoo.co.in *Nita Shah*, Gujarat University, nitahshah@gmail.com *Chetan Jhaveri*, Som Lalit Institute of Business Administration, Ahmedabad, India

A joint optimal strategy for the vendor and the buyer is analyzed in this study when units in inventory are subject to constant deterioration and demand is quadratic. It is shown numerically that the joint approach reduces the total joint cost significantly when compared with an independent approach of both the players. To encourage the buyer to put bigger order, a permissible trade credit is offered by the vendor to settle the account. A negotiation factor is incorporated to share the benefits.

### 9510 Managing Complex Knowledge in Humanitarian Supply Chains

Arvinder Loomba, San Jose State University, loomba\_a@cob.sjsu.edu

In today's tightly-knot world, disasters affect societies in all their aspects. They expose structural and operational vulnerabilities in managing humanitarian relief supply chains. To be effective, one has to understand the role of knowledge pertaining to disasters. This knowledge reflects all aspects of execution, from of effectiveness suppliers/carriers, to the cost/timeliness of response, to donation appropriateness and volunteer management. Thus, effective management of this knowledge repository is critical to the performance of both current and future operations of humanitarian relief programs. We present a framework for managing knowledge in humanitarian supply chains and discuss implications for supply chain managers.

#### 9106 Fuzzy Logic for Supply Chain Managment

Mrinalini Shah, Institute of Management Technology, shahmrinalini@gmail.com

A strategic alliance with the complementor and supplier definitely provides a competitive edge to the organizations and customer as well. This paper introduces the concept of fuzzy to measure the strength of complementors and competitor to enhance the performance of all entities of supply chain. If the strategic partnership with the complementors will be strong and coordination among the supply chain will be strong then satisfaction of the customer will be high. Study proposes a Fuzzy based modeling for the measurement of co-opetiton will lead the organization to the best SCM practice.

### MC2, Monday, June 29, 2:30 p.m.-3:30 p.m. Room 1858 Session: HRM Session Chair: *Pradip Shukla*

Chapman University, USA

### 9107 Study the Relationship Between Cultural Intelligence and Job Engagement

Amitabh Kodwani, Institute of Management Technology, deoamitabh@gmail.com

In multicultural environment, challenges are unique and their resolution demands a specific intelligence in managers. As a result of recent work on human intelligence for multicultural environment, Cultural Intelligence has become significant. Researchers have discovered four components of cultural intelligence Cognitive, Metacognitive, Motivational and Behavioural. The purpose of existing research work is to explore the nature of relationship exist between Job Engagement and Cultural intelligence. This relationship if clearly worked out would be very helpful for multinational organisations to select, train and retain their employees who are required to work in multicultural settings for the success of an organization.

### 9108 Study of the Factors Influencing Training Effectiveness

Amitabh Kodwani, Institute of Management Technology, deoamitabh@gmail.com

Success of training not only depends upon instructor, content, input, training method, but also depends upon the perception of the participants/employees about the training, training awareness, motivation to learn and transfer, learning efforts, training participation & involvement, training transfer climate, and training evaluation. The purpose of this study is to examine the relationship between various variables like training transfer climate, awareness, learning efforts, training participation, training effectiveness etc. This study will help organisations to improve their present condition by improving effectiveness of training. The scanning of literature led to the identification of the variables for the present study.

### 9513 Best Practices in Entrepreneurship Programs with a Cross-Disciplinary Focus

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An exploratory study of program characteristics and best practices of national entrepreneurship programs with a cross-disciplinary campus-wide focus. Out of 2300 campuses offering entrepreneurship programs, certain campuses have have been identified as national leaders in promoting entrepreneurship campus-wide. This study examines the characteristics of fifteen such leading campuses. For each campus, this study reviews various dimensions such as which campus majors and units are primarily engaged in entrepreneurship, listings of entrepreneurship courses, and programs aimed at non-business majors, and metrics of assessing success. Implications and recommendations for campuses wishing to expand entrepreneurship programs across campus identified.