

Newsletter

of the Research & Publications Committee, IIMA



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Abstracts of

Articles

published in refereed journals



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Stochastic Lotka–Volterra Equations: A Model of Lagged Diffusion of Technology in an Interconnected World

In Physica A: Statistical Mechanics and its Applications, September 16, 2015 (Online Reference: DOI:10.1016/j.physa.2015.09.030).

Anindya S. Chakrabarti

We present a model of technological evolution due to interaction between multiple countries and the resultant effects on the corresponding macro variables. The world consists of a set of economies where some countries are leaders and some are followers in the technology ladder. All of them potentially gain from technological breakthroughs. Applying Lotka–Volterra (LV) equations to model evolution of the technology frontier, we show that the way technology diffuses creates repercussions in the partner economies. This process captures the spill-over effects on major macro variables seen in the current highly globalized world due to trickledown effects of technology.

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Linguistic Features for Review Helpfulness Prediction

In Expert Systems with Applications, 42 (7), 2015, 3751–3759.

Srikumar Krishnamoorthy

Online reviews play a critical role in customer's purchase decision making process on the web. The reviews are often ranked based on user helpfulness votes to minimize the review information overload problem. This paper examines the factors that contribute towards helpfulness of online reviews and builds a predictive model. The proposed predictive model extracts novel linguistic category features by analysing the textual content of reviews. In addition, the model makes use of review metadata, subjectivity and readability related features for helpfulness prediction. Our experimental analysis on two real-life review datasets reveals that a hybrid set of features deliver the best predictive accuracy. We also show that the proposed linguistic category features are better predictors of review helpfulness for experience goods such as books, music, and video games. The findings of this study can provide new insights to e-commerce retailers for better organization and ranking of online reviews and help customers in making better product choices.

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Spatial Regulation of Air Toxics Hot Spots

In *Journal of Policy Analysis and Management*, 34 (2), 2015, 298–327.

Rama Mohana R. Turaga, Douglas Noonan and Ann Bostrom

This paper analyzes the potential implications, in terms of net social costs and distribution of risks and abatement costs, of a policy to address the problem of air toxics “hot spots.” The policy we analyze involves regulation of air toxics sources at increasingly finer spatial resolutions. We develop a model of a decisionmaker choosing emission standards within a net cost minimization framework. Empirical application of the model to two counties in Florida demonstrates that regulation at finer resolutions could involve trade-offs between net social costs and equitable distribution of risks and, in some settings, between individual and population risks.

Solving Bilevel Multi-criterion Optimization Problems with Lower Level Decision Uncertainty

In *IEEE Transactions on Evolutionary Computation*, June 2015 (Online Reference: DOI 10.1109/TEVC.2015.2443057).

Ankur Sinha, Pekka Malo, Kalyanmoy Deb, Pekka Korhonen and Jyrki Wallenius

Bilevel optimization problems are characterized by a hierarchical leader-follower structure, where the leader desires to optimize her own strategy taking the response of the follower into account. These problems are referred to as Stackelberg problems in the domain of game theory, and as bilevel problems in the domain of mathematical programming. In a number of practical scenarios, a bilevel problem is solved by a leader who needs to take multiple objectives into account and simultaneously deal with the decision-uncertainty involved in modeling the follower’s behavior. Such problems are often encountered in strategic product design, homeland security applications, and taxation policy. However, the hierarchical nature makes the problems difficult to solve and they are commonly simplified by assuming a deterministic setup with smooth objective functions. In this paper, we focus our attention on the development of a flexible evolutionary algorithm for solving multi-criterion bilevel problems with lower level (follower) decision uncertainty. The performance of the algorithm is evaluated in a comparative study on a number of test problems. In addition to the numerical experiments, we consider two real-world examples from the field of environmental economics and management to illustrate how the framework can be used to obtain optimal strategies.

Does Relationship Marketing Matter in Online Retailing? A Meta-Analytic Approach

In *Journal of the Academy of Marketing Science*, February 17, 2015 (Online Reference: DOI 10.1007/s11747-015-0429-6).

Varsha Verma, Dheeraj Sharma and Jagdish Sheth

Building on the meta-analytic model suggested by Palmatier et al. *Journal of Marketing*, 70, 136–153, (2006), this study extends the relationship marketing framework to the domain of online retailing to identify what strategies help build relationships with online customers. Specifically, this meta-analytic study identifies key antecedents and consequences of relationship marketing in online retailing. The study also examines the relationship between the four mediators—trust, commitment, relationship quality, and relationship satisfaction—and the antecedents and consequences of relationship marketing. Similarity and seller expertise were found to have the strongest impact on relational mediators, and word of mouth was the most critical outcome of relationship marketing efforts. The model proffered in this study will motivate hypotheses to be examined by future researchers. The model also helps managers to identify the key drivers of relationship marketing in online retailing.

Energy Policies for Low Carbon Sustainable Transport in Asia

In *Energy Policy*, 81, 2015, 170–175.

P.R. Shukla and Subash Dhar

Transformation of Asia’s transport sector has vital implications for climate change, sustainable development and energy indicators. Papers in this special issue show how transport transitions in Asia may play out in different socio-economic and policy scenarios, including a low carbon scenario equivalent to 2 °C stabilization. Accounting for heterogeneity of national transport systems, these papers use diverse methods, frameworks and models to assess the response of

the transport system to environmental policy, such as a carbon tax, as well as to a cluster of policies aimed at diverse development indicators. The analysis shows that CO₂ mitigation in a transport system is achieved more effectively by aligning mitigation policies with sustainable development policies and measures such as mandates for mode share and choices such as urban design, information and communication systems, and behavioral measures.

Bayesian Quantile Regression Model for Insurance Company Costs Data

In *Journal of the Royal Statistical Society: Series A*, March 3, 2015, (Online Reference: DOI: 10.1111/rssa.12111).

Karthik Sriram, Peng Shi and Pulak Ghosh

We examine the average cost function for property and casualty insurers. The cost function describes the relationship between a firm's minimum production cost and outputs. A comparison of cost functions could shed light on the relative cost efficiency of individual firms, which is of interest to many market participants and has been given extensive attention in the insurance industry. To identify and to compare the cost function, current practice is to assume a common functional form between costs and outputs across insurers and then to rank insurers according to the centre of the cost distribution. However, the assumption of a common cost-output relationship could be misleading because insurers tend to adopt different technologies that are reflected by the cost function in their production process.

Strategic Investment in Merchant Transmission: The Impact of Capacity Utilization Rules

In *Energy Policy*, 85, April 2015, 455–463

Federico Boffa, Viswanath Pingali and Francesca Sala

In this paper we look at the relative merits of two capacity utilization regimes in the merchant electricity transmission network: Must offer (Mo) where the entire capacity installed has to be made available for transmission and Non Must Offer (NMo) where some capacity could be withheld. We look at two specific cases: (i) demand for transmission varies across time, and (ii) vertical integration is allowed between investors in transmission network and electricity generators. In the case of time-varying demand under Mo, we find that a monopolist may underinvest in transmission when compared to NMo, although NMo may lead to more capacity withholding. In the case of vertical integration, we find that when the market power is with the generators of the exporting node, without vertical integration no welfare-enhancing merchant investment would occur, neither under Mo nor NMo. Further, if the generators in the importing node have market power, in case vertical integration is allowed, Mo is better than NMo. Finally, we also argue that the incentive to collude among various transmission network investors is mitigated with Mo in place.

Impact of the Introduction of Call Auction on Price Discovery: Evidence from the Indian Stock Market Using High-Frequency Data

In *International Review of Financial Analysis*, 39, February 2015, 167–178.

Sobhesh Kumar Agarwalla, Joshy Jacob and Ajay Pandey

Call markets are claimed to aggregate information and facilitate price discovery where continuous markets may fail. The impact of the introduction of call auction has not been found uniformly beneficial, possibly due to poor design or due to 'thick market externalities'. This paper examines the reintroduction of opening call auction at the National Stock Exchange



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of India in 2010. The results suggest that the auctions attract very little volume, the intraday pattern of volume and volatility in the continuous market remains unchanged and a large fraction of price discovery, measured by the Weighted Price Contribution, still takes place in the first 15 min of continuous market. However, the market synchronicity has improved after the introduction of the auction. Our findings suggest that the ability to attract volume in the call auction for effective price discovery depends on the institutional settings and the characteristics of liquidity supply in the market.

Revisiting the Role of the Environment in the Capabilities-financial Performance Relationship: A Meta-analysis

In Strategic Management Journal, May 7, 2015 (Online Reference: DOI: 10.1002/smj.2379).

Amit Karna, Ansgar Richter and Eberhard Riessenkampff

The capabilities-based view of the firm suggests that, in order to gain competitive advantage, firms need both “ordinary capabilities” that allow them to operate their chosen lines of business efficiently and “dynamic capabilities” that help them to upgrade existing or create new ordinary capabilities (Winter, 2003). In their seminal work, Teece, Pisano, and Shuen (1997) argue that dynamic capabilities are particularly important for performance in situations of environmental change, when a firm’s needs to rejuvenate its set of ordinary capabilities are greatest. At the same time, scholars have raised concerns about the special status afforded to dynamic capabilities (Barreto, 2010). Some authors have found the notion of dynamic capabilities to be elusive (Kraatz and Zajac, 2001), intractable (Danneels, 2008), contradictory (Schreyögg and Kliesch-Eberl, 2007), or tautological (Williamson, 1999). Even proponents of the capabilities-based view acknowledge that the distinction between ordinary and dynamic capabilities is blurry (Helfat and Winter, 2011). Eisenhardt and Martin (2000) have suggested that dynamic capabilities may not constitute a source of competitive advantage in high-velocity environments, i.e., in exactly those conditions in which Teece et al. (1997) see the need for dynamic capabilities as greatest (Peteraf, DiStefano, and Verona, 2013).

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A Nested Semi-open Queuing Network Model for Analyzing Dine-in Restaurant Performance, Computers & Operations Research (2015).

In Computers & Operations Research, 65, July 2015, 29–41.

Debjit Roy, Arindam Bandyopadhyay and Pritam Banerjee

Low customer wait times at restaurants can improve both customer walk-ins and satisfaction levels. To manage customer wait times, the operators need a thorough understanding of how restaurant design parameters such as the layout, the number of tables, the number of chefs and other critical kitchen resources affect customer throughput times. In this paper, we present a nested two-level semi-open queuing network model for evaluating the throughput time performance of a dine-in restaurant. We also develop a novel two-phase solution approach to obtain the steady state network performance measures. With throughput time approximations in the inner-level queuing network, the outer-level semi-open queuing network is reduced to an M/G/C queue. The model is extremely useful to identify the bottleneck resources in the system and size system resources for superior customer dine-in experience. To develop the analytical model, we use the layout and design parameters from a well-known restaurant chain in western India. We execute detailed simulation runs to validate the analytical model and test the efficacy of the solution approach.

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The Risk of Impoverishment in Urban Development-induced Displacement and Resettlement in Ahmedabad

In World Development, 27 (1), 2015, 231–256

Sejal Patel, Richard Sliuzas and Navdeep Mathur

Processes of globalization and neoliberal reforms of local governance in Indian cities have created distinct patterns by reshaping the physical and social landscapes of India’s cities, triggering contestations between the privileged and the dispossessed. This paper addresses the consequences for poor households of mega-urban renewal and infrastructure projects and the processes of displacement and resettlement in Ahmedabad, India. The findings indicate

that the displaced poor households have been further impoverished in the course of current practices as a result of limited attention to the risk of impoverishment both in policy and in local government practices. Contrary to the state's rhetoric of inclusive governance, the urban poor are completely excluded from planning for infrastructure development and resettlement processes, leading to a lack of understanding of their needs by the state and their subsequent impoverishment after resettlement.

Brief Notes on Books

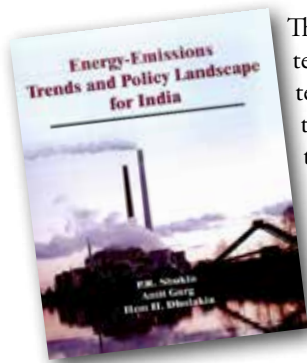
Authored/Edited by IIMA Faculty



Energy-Emissions Trends and Policy Landscape for India

New Delhi: Allied Publishers, 2015

P. R. Shukla, Amit Garg and Hem Dholakia



The book demonstrates the necessity and validity of following a long-term development-centric perspective; even while delineating near-term energy and emissions policies, programs and targets such as those needed to delineate the INDCs. The book, while illustrating the best practice modeling, scenarios development and policy assessment for India, provides insights into the mode and mean of navigating the energy and emissions policy landscape for India.



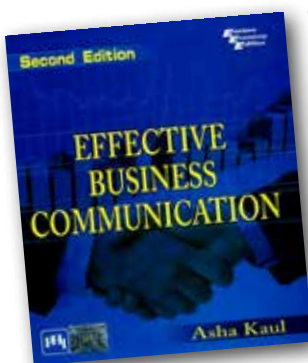
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Effective Business Communication

New Delhi: Prentice-Hall of India, 2015

Asha Kaul



Communicating a message effectively needs precision be it verbal or non-verbal. At the professional front, the accuracy of the message to be shared becomes all the more important as the business decisions may depend on the same. This book, in its second edition, continues to detail on the pre-requisites of communicating effectively in the corporate environment and generally.



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Rethink: What's Broke at Today's Corporations and How to Fix It

New Delhi: Allied Publishers, 2014.

T. T. Ram Mohan and M. Damodaran



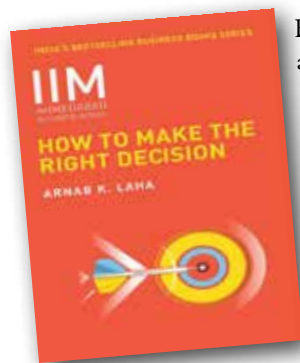
Corporations are crucial to society's well-being. Yet, not many have chosen to adapt themselves to the expectations of employees and the society at large. Prof. Ram Mohan identifies the three main problems that ail companies and illustrates the ways in which these can be combated. Most companies are still run from the top and make very little attempt to involve employees at the lower levels in decision making. Executive compensation has spiraled steeply in recent years because the process of determining it is seriously flawed. Boards of directors are ineffective and have abetted the cult of the charismatic CEO who is expected to work wonders. Rethink

contends that the solution lies in the near-total dismantling of hierarchy or the creation of a bossless organization. In such an organization, the structure is flat, employees operate through self-driven teams, there is peer review, power rests on one's contribution and not one's title and the organizational purpose goes beyond the making of profit, and several other features.

How to Make the Right Decision

Haryana: Random House India, 2015.

Arnab K. Laha

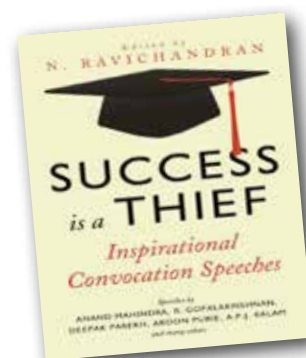


Business analytics, the method by which data around a business is analyzed to better determine the choices we make, is your answer. In this accessible, user-friendly book, Professor Arnab Laha explains the relevance of this growing field in business and looks at its uses in marketing, finance, operations and HR. He also devotes a special section to setting up business analytics for your workplace. With examples and case studies, *How to Make the Right Decision* is the most useful book you can buy for yourself and your business.

Success is a Thief: Inspirational Convocation Speeches

Gurgaon: Random House India, 2015.

Edited by N. Ravichandran



'Success is a thief; failure is a fortune' - R. Gopalakrishnan, Director, Tata Sons Ltd Convocation is a magical time for graduates - it is liberating and petrifying in equal measure. It is tradition to invite a noted personality to deliver an address which can rouse the students to step into the real world with courage, motivation and enthusiasm. This book brings together twenty convocation speeches delivered at the greatest management institutes in this country by eminent personalities like A.P.J. Abdul Kalam, Deepak Parekh, Subrato Bagchi, Indra Nooyi and Anand Mahindra. This book also offers reflections from experts who analyze these speeches, and delves into the art of

inspiring communication.

Business Taxation

New Delhi: McGraw-Hill Education, 2015

Akhileshwar Pathak and Savan Godiawala



Business Taxation by Pathak gives a cogent and comprehensive introduction to the field of taxation. The book facilitates the readers understanding of the concepts and principles of each sub-field of taxation. The narrative style of the book encourages the readers to engage with the subject, and discover the principles by and for themselves. Written in a lucid manner, it will be a valuable resource for anyone interested in taxation, particularly managers.

Legal Aspects of Business

New Delhi: McGraw-Hill Education, 2015

Akhileshwar Pathak



Legal Aspects of Business 6th Edition, authored by Akhileshwar Pathak, is a book that includes the new Companies Act, 2013. The text makes teaching and learning business laws interesting and easy to understand. This edition of the text has been restructured and condensed. Thus enhancing the flow of the text.

Marketing in Emerging Economies

Ahmedabad: Indian Institute of Management, 2015.

Anand Kumar Jaiswal, Arindam Banerjee, Arvind Sahay, Piyush Kumar Sinha and Dheeraj Sharma



A conference on marketing in emerging economies, for the fourth time, will be organised from January 7-9, 2015 at the Indian Institute of Management, Ahmedabad (IIM-A). The conference will be part of a series of events which the institute is conducting as a part of IIMA's 50th year celebrations. According to coordinating committee members of the conference, has become a platform to propagate research pertaining to marketing in emerging economies. The conference has a 25% acceptance rate and is believed to be amongst one of the world's best conferences. Efforts are also being made to compile bibliography of research on marketing in emerging economies and the first such bibliography and the methodology adopted in preparing the same will be part of the conference.



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Abstracts of Book Chapters

authored by IIMA Faculty



Assessing and Communicating Benefits of Green Growth

In Green Growth Best Practice: Lessons from Country Experiences, edited by Benioff, Ron et. al., Republic of Korea: Global Green Growth Institute <http://www.ggbp.org/sites/all/themes/ggbp/uploads/Green-Growth-in-Practice-062014-Full.pdf>.

Bishop, R.; Els J.; Harrison, N. and Shukla, P.R.

Governments pursuing green growth strategies aim to achieve sustained economic growth alongside broader environmental and social objectives. They focus on leveraging the synergies between these three dimensions, while managing the trade-offs efficiently. This often involves transformational change, especially the de-coupling of economic growth and improvements in social welfare from natural resource depletion, and the development of climate resilient growth and societies

Agricultural Policy Strategy, Instruments and Implementation

In Economic Growth and its Distribution in India, edited by Pulapre Balakrishnan, Orient Black Swan: 2015, 173 – 193.

Bhupat M.; D'Souza, Errol; John Mellor W.; Sharma, V. P. and Tamboli, Prabhakar

For 40 years, India's agricultural growth rate has averaged less than one-third of the government's modest target of 4%. The sector's performance has been about the same before and after the economic reforms in the early 1990s. The reforms that brought a dramatic acceleration of growth in urban sectors have essentially had no effect on agriculture. Slow agricultural growth has had ill-effects on food security, food price inflation and poverty reduction because of the inadequate level and composition of public expenditure. Agricultural education, research, extension and a wide range of ancillary public institutions have also suffered. Agricultural growth always demands massive public goods provision and that in turn requires a radical reorientation of central, state and district government activities. This paper advocates a new integrated, technology-led strategy to pull out of, what looks like, a vicious circle that agriculture is now caught in.

Urban Development in Gujarat

In The Making of Miracles in Indian States, edited by Panagariya, Arvind and Rao, Govinda M., New York: Oxford University Press, 2015, 15, 265-274.

Dholakia, Archana and Dholakia, Ravindra H.

The chapter discusses various aspects of urbanization and policy initiatives in Gujarat. The contribution of migration in the relative growth of urban areas is 44% and yet, the proportion of slums in the state has fallen sharply during the last decade suggesting success of specific efforts by the state and municipal authorities. The Urban Land Ceiling Act is repealed but the processes are yet not simplified enough. Water supply in big cities is far from satisfactory perhaps because suggested reforms have not been implemented. In solid waste disposal, however, reforms have been introduced with private participation to improve the collection efficiency. Focused state intervention has improved both the quality and quantity of urban road network. Municipal finances in Gujarat show significantly higher revenue collection than the national average in spite of complete abolition of octroi since 2007. Ahmedabad Municipal Corporation has successfully tapped the capital market to finance urban infrastructure projects.

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Fiscal Reforms and Performance in Gujarat

In *The Making of Miracles in Indian States*, edited by Panagariya, Arvind and Rao, Govinda M., New York: Oxford University Press, 2015, 16, 275-284.

Dholakia, Archana and Dholakia, Ravindra H.

The chapter reviews the fiscal performance and reforms during the last two decades in Gujarat. In the early 1990s, various deficits and interest payment crossing prudent limits had raised serious concerns about sustainability. The state had to design and carry out fiscal reforms under tremendous pressure by the late 1990s. The devastating earthquake of 2001, however, forced the government to divert efforts and funds to meet emergent needs of the affected population and infrastructure. During the last decade, fiscal reforms with simplification and rationalization of taxes and expenditures started moving fast. It led to a sharp decline in the size of the government from 17% to about 13%. The state has been comfortably achieving almost all Fiscal Responsibility Legislation targets including the cap on contingent liabilities. A clear strategic shift in expenditure allocation in favor of social sectors is visible during the last decade vis-à-vis the previous decade.

India: The Labour Market

In *Minimum Wages, Collective Bargaining and Economic Development in Asia and Europe. A labour perspective*, edited by Maarten van Klaveren, Denis Gregory and Thorsten Schulten, Palgrave Macmillan, 2015.

Varkkey, Biju

India has a long tradition of having a statutory framework for minimum wages (MW) designed to cover its large, working population distributed between the formal and informal sectors. The Minimum Wages Act 1948 enacted soon after India gained independence on August 15, 1947, which meant that the country was the first among the developing countries to introduce a statutory MW. Both internal (rising industrialization, labour unrest and strikes) and external forces (International Labour Organization (ILO) conventions and political developments) contributed to the enactment of this legislation (John 1997; Rani and Belser 2012). Even today this MW legislation is considered as a landmark law, though it is extremely complex from an administration perspective. It is through this piece of legislation (and for many years the only major one) that workers in the informal or unorganized sectors and agricultural occupations have received protection against low wages. Given the complexities of the Indian labour market, the legislation has been an achievement. MW rates have been declared for more than 1,500 occupational categories, for the centre and 30 states/7 union territories (UTs, administered by the central government), bifurcated further by geography and skill levels (Varkkey and Korde 2012).

The MW has always been a controversial issue in India and the subject of social, political and legal debate. The issue was discussed again nationally in December 2013, following a diplomatic crisis. An Indian career diplomat was arrested in the United States and one of the charges levelled concerned non-payment of MW (as per US laws) to the domestic help of Indian origin employed by the diplomat in the United States. While the event snowballed into a diplomatic crisis between the two countries and the MW Issue got sidestepped, voices were once again raised in India regarding MW for domestic workers, who make up a considerable section of India's informal workforce.

The Discrete Time-Cost Trade off Problem with Irregular Starting Time Costs

In *Handbook on Project Management and Scheduling*, edited by C. Schwindt and J. Zimmermann, Vol.1 International Handbooks on Information Systems, 2015, 621-638.

Venkateshan, Prahalad and Szmerekovsky, Joseph V.

In this chapter we review the literature on the discrete time-cost tradeoff problem (DTCTP). We then present the four integer programming formulations of a version of DTCTP with irregular starting time costs from Szmerekovsky and Venkateshan (Comp and Oper Res 39(7):1402–1410, 2012). Specifically, the problem is an irregular costs project scheduling problem with time-cost tradeoffs. The empirical tests performed in Szmerekovsky and Venkateshan (Comp and Oper Res 39(7):1402–1410, 2012) are updated using the current version of CPLEX and similar results are found being driven by a reduced number of binary variables, a tighter linear programming relaxation, and the sparsity and embedded network structure of the constraint matrix.



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Abstracts of doctoral

Theses

completed in March 2015



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Analysis and Design of Public Policy Using System Dynamics Approach: A Case in AYUSH

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Area: Information Systems

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High prevalence of communicable diseases, rapid increase in prevalence of non-communicable diseases, and poor maternal and child health indicators characterize public health situation in India. One of the main reasons for it is inadequate coverage of healthcare services. For inadequate coverage of healthcare services, lack of trained healthcare workforce has been stated as one of the reasons (Koblinsky, Matthews, Hussein, Mavalankar, Mridha, Anwar et al., 2006; Dogba & Fournier, 2009).

In India, health is a state government subject. As of now many states in India do not have a clearly formulated health policy. Health policy followed by state governments is generally guided by policy and programs formulated by the central government at the national level. Moreover, provision of healthcare services by public healthcare setups is driven by supply and not by demand for healthcare services (Ramani & Mavalankar, 2006). In such a situation, it becomes necessary to carry out analysis of healthcare workforce policy so as to bridge the gap between demand and supply of healthcare services.

In this research work, a System Dynamics model is developed that characterizes decision-making process of estimating demand for healthcare workforce and meeting it through recruitment in public Ayurveda healthcare setup. Public Ayurveda healthcare setup was selected based on the consideration that there is an official policy of promoting traditional system of medicines and its practitioners in providing healthcare services. At the same time, policy formulation for healthcare workforce in these setups is largely ad hoc in nature.

The developed model was simulated for a period of 50 years for knowing both short term and long term trends in the setup. Results obtained indicate that current decision-making process is having a significant negative impact on healthcare service provision capacity of the setup. Outputs obtained also highlight the requirement of rapid upscale in healthcare service provision capability of the setup.

This study demonstrates the application of System Dynamics methodology for policy analysis and formulation. Key contributions of this study are (a) Providing an integrated tool for analysis of healthcare workforce policy, (b) Informing linkages between existing healthcare workforce policies and their impact on behavior of public healthcare system, and (c) Learning from exploration and generalizing for public policy in a broader context.

An Integrative Delineation of the Determinants of Dynamic Capabilities: A study in the Information Technology Industry

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Dynamic capabilities are the capabilities of an organization to systematically change its resources base by sensing opportunities and making appropriate and timely decisions (Barreto, 2010; Teece, Pisano, & Shuen, 1997; Teece, 2007). Explaining dynamic capabilities is important as these capabilities affect various firm level outcomes such as strategic change in

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response to environmental developments, financial and non-financial performance, product and process innovations and alternative sources of competitive advantage. The literature on the determinants of dynamic capabilities is scattered and selective. Not all the possible determinants have been identified and tested empirically. There is a need for delineating the determinants comprehensively and develop an integrated framework that is testable and actionable.

This study reviewed extant literature to articulate extensively the known determinants of dynamic capabilities. We identified gaps in extant literature and hypothesized *risk orientation* and *change disposition* as new determinants of dynamic capabilities. We integrated the newly conceptualized determinants (i.e. risk orientation and change disposition) with the main known determinants (i.e. organizational learning orientation, managerial human capital, managerial social capital and environmental dynamism) and built an integrative conceptual model of the determinants of dynamic capabilities. Further, we hypothesized relationships between the determinants and individual dimensions of dynamic capabilities i.e. the propensity of an organization to (a) sense opportunities, (b) make timely decisions, (c) make market oriented decisions and (d) change the resources base. This approach provided a more nuanced understanding of what dimension of dynamic capabilities is affected by each determinant.

We tested our hypothesized model by carrying out an empirical study in the information technology (IT) industry which is characterized as being knowledge intensive, highly reliant on human resources, and faced with high levels of environmental dynamism. We collected primary data from top management team members of 233 organizations in the IT industry using a survey questionnaire and analyzed the data using partial least squares based structural equation modeling (PLS-SEM). In summary, the distinct contributions of the study are that it (a) Articulated comprehensively the determinants of dynamic capabilities; (b) Built an integrative model of the determinants; (c) Hypothesized and tested risk orientation and change disposition as new determinants of dynamic capabilities; and (d) Established relative importance among the determinants of dynamic capabilities.

Essays on the Newsboy Problem

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The newsboy problem is about minimizing the penalty associated with demand-supply mismatch of an item with uncertain demand by suitably deciding the stocking quantity. Newsboy problem arises in a variety of situations like inventory management of perishable products, supply chain coordination, revenue management, etc. In this dissertation, we address three issues associated with the newsboy problem.

1. Sensitivity analysis of the newsboy model

Decision making in optimization models requires knowledge of certain parameters. Due to parameter estimation error, actual decision deviates from the optimum. We study the impact of sub-optimal decisions on inventory cost in the classical newsboy model. In particular, we identified conditions for symmetry/skewness of cost deviation, i.e., deviation of expected cost from its minimum, and studied its magnitude by establishing a lower bound. We found the newsboy model to be sensitive to sub-optimal order quantities.

2. Multi-product newsboy problem with satiation objective

Achieving a profit target is often preferred over maximizing expected profit in uncertain business environments. Newsboy problem with satiation objective, i.e., maximization of the probability of achieving the given profit target, has not received adequate attention from researchers, particularly in the multi-product setting. We study the multi-product satiating newsboy problem using a discrete formulation. We developed computational method for solving the problem optimally. Our algorithms, though inefficient, solve the problem in its general form.

3. Heuristics for the multi-product satiating newsboy problem

As noted above, the multi-product satiating newsboy problem has not been studied well. Practically usable solution methods are available only for two-product instances. We developed heuristics for solving larger instances of the problem. Two of our heuristics are search-based,



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i.e., they search 'intelligently' in the solution space. The third heuristic is decomposition-based, i.e., it decomposes the multi-product problem into easily solvable single-product problems. Our heuristics solve the problem in reasonable time with good accuracy.

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Exploring the link between work intensification and Telehomework: The case of Indian Information Technology Sector

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Most scholars who empirically examined the link between work intensification and telehomework consider work intensification as an outcome of telehomework. However, a few others suggest that work intensification engenders the need for flexible work arrangements such as telehomework, although they did not undertake any systematic empirical examination. The former stream of studies, which is dominant, uses the logic of control-autonomy paradox to explain how work intensification is an outcome of telehomework. Work intensification is explained as an outcome of unobtrusive organizational controls that hide under the cloak of autonomy. However, studies on organizational control show that control produces resistance to it, and that they are mutually implicative. Therefore, to understand organizational controls, we also need to explore resistance to these controls. However, the extant telehomework literature has paid only scant attention to resistance.

Filling these gaps in the telehomework literature, this study addresses the two related issues: 1) Systematic empirical examination of the link between telehomework and work intensification and 2) resistance to control in telehomework, in relation to work intensification.

The empirical context of this study is telehomework in the Information Technology sector in India. We adopted an interpretive approach, and used mainly in-depth interviews to create the data. Interview data was supplemented with data from other sources, which include unplanned observations and secondary data. We analyzed the interview data using constructivist grounded theory method and used the other data mainly as background information and for identifying potential sources of tensions and contradictions.

In our analysis, shared understanding among employees—managerial and non-managerial—about intensified work in office space, specifically odd and long work hours, emerged as the main theme. This shared understanding include interpretations of telehomework as (1) a work facilitator—means to cope with intensified work and (2) an employee benefit that is granted at the discretion of managers. In addition to this shared understanding, managers were also cognizant of the potential for opposition to the intensified work. To reduce this potential, managers used the shared understanding implicitly as a resource to negotiate with non-managerial employees. Underlying the negotiation is a sense of trade-off between the 'costs' involved in intensified work and the 'benefits' of telehomework. Through this negotiated exchange, work that was already intensified in the office space was transferred to the home space. Work intensification, thus, functions as an antecedent that triggers telehomework, since the need to cope with intensified work and the managerial challenge to reduce the opposition to it engendered a need for telehomework. Thus, we build on the suggestion in the extant literature that work intensification engenders the need for telehomework, and identify how dominant interpretations of telehomework serve as management resources to reduce the potential for opposition to intensified work.

Further, we identify that the transfer of work from office space to home space also involved a transfer of organizational controls—technocratic and socio-ideological. In addition, telehomework brought in new socio-ideological controls. These controls together with the existing technocratic and socio-ideological controls formed a tight network of controls. This, in turn led to further intensification of work in the home space, which can be considered as an outcome of telehomework. Thus, this study synthesizes the two streams of studies on work intensification in telehomework literature: the dominant one, which argues that work intensification is an outcome of telehomework, and the alternative, which suggests that work intensification is an antecedent of telehomework.

Although there was a tight network of controls, its effect was not complete, as the literature on

organizational control would argue. We found a few pockets of resistance to controls in the home space, wherein some employees creatively postured virtual visibility by manipulating the electronic surveillance mechanisms used by managers. They also appropriated the norms that were one of the sources of organizational control. They used them as resources to justify such manipulation, and to confront manager's close monitoring. Thus, we identify the manifestations of employee resistance in telehomework, which is underexplored in the extant literature. We also identify how conflict between technocratic and socio-ideological controls could provide potential for such resistance.

At a broader level, the study points to a potential contradiction in the extant literature that considers flexible working arrangements such as telehomework as work-life balance facilitators. Policy makers across the world are encouraging flexible working arrangements such as telehomework. As this study points out, if such policies that are claimed to benefit employees are not created carefully, they could become managerial resources to push intensified work into the home space, invalidating such claims.

Solar and Bioenergy Scenarios for India: Modeling & Policy Assessment

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Renewable energy resources and technologies are among the prime options to mitigate externalities from energy supply-chain. Typically energy externalities appear in different forms and vary across spatial and temporal spans. Local air pollution concerns sub-national policymakers; energy security concerns are dealt by national policymakers and in recent decades, addressing global greenhouse gas emissions and consequent climate change has emerged as a key concern within the international policymaking agenda. Renewable energy portfolio has vital interfaces with energy externalities. Therefore future of renewables will be shaped by competitive dynamics of conventional energy markets, .e.g. fossil fuels; learning rates of renewable technologies and also the policies to mitigate energy externalities. The India focused literature on renewable energy typically treats renewables as a single entity and the time horizon of energy market competition in most studies is limited to short (5 years) to medium-term (15 years). This research focuses on two competing and complementary renewable energy sources, namely solar energy and bioenergy. The future role of these two renewable energy forms is analyzed, using an energy systems model. The methodology follows scenario analysis, spanning a horizon till the year 2050. The analysis is carried out within the competitive context of the entire Indian energy system.

We study the past evolution of solar and bioenergy in India, the different competing and complementing features between them in electricity, transport, and building sectors, their role in long term up to 2050 under different scenarios, and assess the role of policies in different time frames. An integrated modelling approach, using a bottom up energy system MARKAL model linked with a top-down GCAM-IIM model, is employed to analyze three main scenarios and four sub-scenarios. The analysis shows that: i) the share of bioenergy in primary energy mix declines from 19% in 2010 to 4% in 2050 under business-as-usual (BAU) scenario and 7% under low carbon sustainable development (LCSD) scenario, ii) the share of solar energy rises from negligible in 2010 to 1% in 2050 under BAU and 13% under LCSD, iii) the share of bioenergy remains higher than solar energy in all through till 2050 under BAU; in LCDS bioenergy share remains higher than solar till the year 2040, but solar energy thereafter overtakes the bioenergy share; iv) imported biomass accounts for 32% of total bioenergy consumption in 2050 under LCSD, while in BAU it accounts for only 9.5%; v) coal consumption in 2050 declines by more than 50% in LCSD compared to BAU; vi) coal power plants with CCS are not competitive in BAU even in 2050, while under LCSD all coal power plants have CCS in 2050, and vii) the GHG emissions in 2050 under LCSD are 71% lower than that in BAU as a result of reduction in energy demand (25%) and fuel switch changes (46%).

The key policy implications from the study are: i). evaluating solar energy and bioenergy separately is essential since competition exists at different levels, with non-renewable energy sources, amongst themselves, and also among technologies within individual energy types (for both solar energy and bioenergy); ii) whereas competition and complementarity between the



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two energy forms are simultaneously evident, but the nature and extent of competition and complementarity differ across the sectors, time frames, and scenarios, iii) there is no dominant policy; but a mix of well-crafted and integrated policies covering multiple dimensions, such as time-frame, sectors, geography and economics, will be needed to deliver optimal outcomes.

The key contributions from research includes: i) use of an integrated energy systems framework and quantitative modelling, ii) construction and assessment of scenarios, keeping in view the competition and complementarity among the energy resources and technologies and iii) delineation of policy roadmap for solar energy and bioenergy in India.

Keywords: Solar energy, Bioenergy, Competition, Modelling, India

A Study of Investor Sentiment in Indian Market

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Area: Finance & Accounting

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Market sentiment has always been given importance by investors in their decisions. Classical finance theories based on investor rationality, however, largely ignored the possible role of market sentiment in asset pricing. The recently developed finance theories based on investor irrationality attempt to formally define and model sentiment and examine its impact on asset pricing.

Investor sentiment is a measure of the influence of irrational behaviours on asset prices at a point of time. The sentiment prevails as rational investors fail to dominate the irrationals through arbitrage. Sentiment is often measured based on inputs from consumer confidence indices and surveys of investor mood. Financial market data such as advances to declines, dividend premium, turnover etc. have also been used to develop sentiment indices.

We attempt to develop a sentiment index for the Indian market at a monthly frequency based on financial market data. The financial data used include premium on dividend paying stocks, stock market turnover, market volatility, net investments by foreign institutional investors and the number of IPO's. The sentiment index, developed from the first principal component of these variables explains 46.8% of the combined variance. We employ the sentiment index to empirically examine a number of the features of the asset prices in India.

We test the hypothesis that hard to value and difficult-to-arbitrage stocks are more influenced by irrational sentiment. We expect highly volatile, small, relatively young, non-dividend paying and unprofitable stocks (characteristics of hard to value and difficult to arbitrage stocks) to be prone to sentiment. Our results show that larger, less profitable and less dividend paying stocks are more sensitive to sentiment in India.

We also examine whether incorporating sentiment in asset pricing models better explains financial anomalies. Using a conditional asset pricing model and a two-step regression methodology, we find that inclusion of sentiment is able to better explain asset pricing anomalies.

Multilevel Network Measures for Organizational Learning Process

Nobin Thomas

Area: Organizational Behaviour

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Organizational learning has received increasing attention from scholars and practitioners alike for the past five decades. Yet lack of agreement among scholars for an accepted theory or methodology for measuring organizational learning still persists. Most of organizational learning research has focused on declarative (know-what) and procedural (know-how) aspect of knowledge with little emphasis on the relationships among people in an organization that shape organizational learning. The need for a multilevel perspective, though widely recognized has not yet resulted in significant contributions in the field. To address these concerns and gaps in literature, adopted a process-based view of organizational learning consisting of four distinct subprocesses - information acquisition, information distribution, information interpretation

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and organizational memory. This study advances the measurement of organizational learning process using social network analysis and develops measures of organizational learning subprocesses that are multilevel and are able to provide a snapshot of the current process of organizational learning within the organization. Network measures of organizational learning within firms and between firms were compared to deepen understanding of learning processes across hierarchical levels in an organization. This study using a multi-theoretical, multilevel perspective to examine organizational learning networks has important implications for methodological advances and managerial practices. Limitations are addressed and future research directions are suggested.

Sustainable Low Carbon Urban Mobility: An Assessment of Future Scenarios and Policies for India

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Under business-as-usual development, emissions from the transportation system that delivers mobility, given its high fossil-fuel dependence, are expected to exacerbate local air pollution across India's cities and add to CO₂ emissions that cause global climate change. Studies show these externalities are significant and emphasize on alignment of national, sectoral and local development policies with climate change targets to gain multiple co-benefits in the long run. There are also opportunities to gain incremental funds through carbon finance mechanisms for projects that mitigate greenhouse gases. Studies in the Indian context that quantify the long-term co-benefits of aligning global climate change targets with local and national development goals are rather limited. The study has explored this gap.

The study uses an integrated assessment framework to assess the long-term co-benefits from a passenger mobility system aligned to climate and development goals at national, city (Ahmedabad) and project (metro rail) levels. The conjoint GHG emissions and local air pollutant reductions are estimated for business-as-usual (BAU) and sustainable low carbon mobility (SLCM) scenarios. The alternative scenarios are constructed to investigate the impact of a mix of strategies that involves environmental policies, fuel standards, penetration of alternative vehicle technologies, consumer behaviour, etc. A project level case study of a metro rail is used to show the access to carbon funds using the Nationally Appropriate Mitigation Actions (NAMAs) framework.

The results for the National passenger mobility case study show that by 2050: (i) passenger mobility demand reduces by 10%, (ii) energy demand reduces by 43%, (iii) CO₂ emissions decrease by 69% and (iv) PM_{2.5} emissions decrease by 40% in SLCM compared to the BAU. For the Ahmedabad passenger mobility system, by 2035: (i) the passenger mobility demand decreases by 20%, (ii) energy demand decreases by 32%, (iii) CO₂ emissions reduce by 41% and (iv) PM_{2.5} emissions decrease by 70%, due to various interventions in SLCM compared to BAU. The major contributions of the study include integrated assessment modeling, scenario analysis, addition to the city and national scenario databases, development of a framework for determining potential revenue generation through carbon finance mechanisms for sustainable low carbon mobility projects, and related policy contributions.

Modal Shift Estimation and Financial Viability of High Speed Rail in India: The Case Study of Ahmedabad-Mumbai Corridor

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The share of rail in passenger transport in India has declined rapidly, primarily due to severe capacity constraints and inability of railways to increase the speed of travel. Other countries facing similar problems have found High Speed Rail to be the solution. The Indian Government has identified the Ahmedabad – Mumbai corridor with stops at Vadodara and Surat as being best suited for High Speed Rail. Accordingly, in this thesis, the modal shift and financial viability of High Speed Rail in passenger transport in the Ahmedabad – Mumbai corridor has been estimated to evaluate its potential in catering to the increasing passenger travel demand in this corridor.



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The modal shift towards High Speed Rail has been estimated using discrete choice models from actual data of common carrier modes considering travel cost by income, production hours and non-production hours of travel time and end to end travel penalty (a comprehensive variable which included access-egress, terminal penalty, in-vehicle discomfort, crowding penalties) as the explanatory variables assuming 2025-26 to be the first year of operation. Based on the estimated modal shift, the financial viability has been estimated for various internal rates of return. The results show that the HSR project would recover the investment within ten years of operation from the tariffs alone for a reasonable financial internal rate of return.

It was also estimated that HSR would get at least 48 million end to end passengers in 2025-26, the first year of commercial operation. With an annual passenger growth rate of 15.32% between 2025-26 and 2030-31, the end to end ridership would be at least 97 million in 2030-31 and with 11.63% between 2030-31 and 2035-36, the end to end passengers for HSR would reach at least 170 million in 2035-36. This kind of expected mammoth ridership would facilitate the recovery of the entire investment cost of the project making this as the most successful HSR project in the world. Some policy measures have also been recommended to ensure the successful implementation of the High Speed Rail project and increases its ridership further.

This thesis contributes to literature by way of evolving a methodology for the estimation of modal shift using actual data of the common carrier modes, inclusion of variables of production hours and non-production hours of travel and total travel penalty that have not been considered by the previous modal shift studies. This methodology provides a comprehensive, robust and new framework for modal shift estimation and financial viability of High Speed Rail projects in developing countries similar to India.

Does Strategic Planning Determine Innovation in Organizations? A Study of Indian SME Sector

Safal Batra

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Innovation is considered to be a source of competitive advantage. Not surprisingly, innovation has been a matter of scholarly interest for several decades now. However, despite its critical importance to the strategy literature, the linkage between strategic planning and innovation in organizations has not been the focus area of researchers. The current literature is mostly conceptual and lacks empirical validation leading to fragmentation in findings. For example, while some researchers argue that strategic planning helps in new product development and can be seen as a framework for innovation, others believe that it restricts creativity and innovation.

Apparently, the fragmentation in findings engenders from a narrow view of strategic planning. The concept of strategic planning has undergone a metamorphosis from the time it originated in 1960s and 70s. From being a rigid to-do organizational activity, it has come to evolve as a fluid continuous organizational level activity in the 2000s. This study views strategic planning as a comprehensive integrative mechanism (comprising of function coverage, external and internal emphasis, and resource allocation and commitment), and hypothesizes that strategic planning positively influences innovation in organizations.

Data for this study, measuring the extent of strategic planning, perceptions of organizational structure, commitment to learning and innovation in organizations, were collected by administering standardized survey questionnaires to entrepreneurs or other senior executives of small businesses. Quantitative analysis (structural equation modeling) of data obtained from 123 small and medium businesses in the manufacturing industry yielded a positive relationship between strategic planning and innovation. Further, this relationship was found to be equally strong for various kinds of innovation.

This study also established a significant positive moderating role of commitment to learning on the relationship between strategic planning and innovation. However, contrary to the hypothesized relationship, structural flexibility in organizations did not exhibit any moderating effect on this relationship.

This research contributes to existing literature in many ways. This is probably among the first studies to explore a comprehensive array of dimensions of strategic planning and innovation together in order to expand our current understanding of this relationship. By conceptualizing strategic planning as a comprehensive integrative mechanism and operationalizing it as a second-

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order multi-dimensional construct, this dissertation offers several theoretical and practical insights. The findings clearly reveal that strategic planning, coupled with organizational learning, helps organizations assess the complexities of their external environment and respond effectively to external contingencies, which in turn leads to successful innovation in organizations.

Keywords: Innovation, Strategic Planning, Commitment to Learning, Structural Flexibility

‘Re-Internationalization’ Process in Organizations

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Re-internationalization, or a firm's re-entry into international operations after exiting from initial international operations, is a scarcely researched phenomenon, although it has been found that intentions for re-entry to international activities among firms that had exited their initial international operations may be high. There is very little detail available on the similarities and differences in firms' approaches during their initial and later internationalization stages. And more so, the essential processes firms go through each stage leading to re-internationalization has not received much attention of researchers.

This research aimed at addressing re-internationalization phenomena for developing a holistic view of re-internationalization as a process; for finding out how various resources, capabilities, and competencies a firm acquired, modified, and/or complemented during its initial international phase, the exit process, and time-out period before re-entry to international activity affect firm's re-internationalization and its performance during that stage.

We conjectured the following relations: the initial international experiences of a firm are positively related to re-internationalization and firm performance during re-internationalization; possessing re-entry intention at the time of exit is positively related to maintaining continuity in networks as well as retention of key personnel associated with initial international operations which in turn is positively related to re-internationalization; dynamic capabilities of a firm are positively related to re-internationalization; and organizational commitment towards international activities is positively related to re-internationalization. We also hypothesized that firm performance during re-internationalization is better than during initial internationalization.

We used mixed research methods for elucidating the research questions to enable several different questions to be inquired that could not have been researched by limiting only to one method. A quantitative survey was directed at senior management staff of re-internationalized firms to verify our proposed relations; whereas qualitative multiple case-based studies were undertaken to understand the intricacies of the process on how and why the phenomenon has evolved. We also stretched into secondary-data based analysis to figure out the performance implications and differences of initial internationalization and re-internationalization stages.

The survey data collection included direct visits to 100+ firms across 10+ cities in India based on an initial shortlist of firms identified using CMIE Prowess and Capitaline databases. Among the 73 firms that were finally identified to be part of the study, we garnered responses from 71 firms, i.e. a response rate of 97.26%. The data analysis based on PLS-SEM (partial least squares method based structural equation modeling) technique using SmartPLS software found support for the following hypothesized relationships; initial international experiences, organizational commitment to internationalization, and the presence of dynamic capabilities are positively related to re-internationalization performance. However, intention for re-entry at the time of exit, and continuity in networks and key personnel from initial through re-entry phases of internationalization was not found to have a significant effect on re-internationalization performance as hypothesized earlier.

For the case studies, we selected four firms, two each from Ahmedabad and Hyderabad, spread across different industries and performed within-case and cross-case analysis with the aid of Atlas.Ti software to come up with meaningful results. Apart from bringing forth more clarity in the evolutionary process, the case studies helped us to build useful corollaries, most of which were corroborating with the results we found from other modes of analysis used in this study.

On the secondary data front, we used IBM-SPSS software to analyze the financial performance data of the 73 firms from 1990 to 2012. The data analysis supported the theorized relationship



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that internationalization, and re-internationalization specifically, has a positive impact on firms' financial performance, and the performance during re-internationalization period is better as compared to that during initial internationalization period. We used various sub-categories of economic indicators such as total income, export income, and profit as measures for firm performance to deduce the above results.

The comprehensive nature of this study made it more complex. The triangulated research outcome supported many of our initial research hypothesis. Being one among the first ever field studies conducted on an almost unexplored phenomenon, and that too on a comprehensive scale, this study is expected to serve as a foundation for scholars to scrutinize and work further upon, besides having predictive value for practitioners and policy implications.

Exploring Openness in Innovation Process

Shantam Shukla

Area: Business Policy

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Innovation as a source of competitive advantage helps organization gain superior returns from market. Until recently, innovation activities were generally restricted inside organizations and in some cases to select partners, to limit potential spillovers of knowledge that could undermine the uniqueness of innovation. The last two decades have witnessed the emergence of practices where private enterprises open all or select innovation activities for anyone with interest to participate. Referred to as “open innovation” approach to innovation development, organizations have shown different patterns of openness in their innovation efforts. The patterns of openness refer to the levels of openness and stages of openness in the innovation process. This study classifies openness as “closed”, “semi-open” or “open” depending on the opportunity for external members to engage in organization's innovation effort. Openness is also exhibited across different stages of the innovation process as idea, execution and value capture. Thus, an innovation can have different form of openness across the innovation process. Based on its findings the study argues that openness is a strategic choice of an organization represented by different levels of openness across different stages of innovation process.

The focus of this study is on understanding the determinants that influence the choice of openness across the stages of innovation process. Based on an in-depth study of innovation projects from five different organizations from automobile, computer and information technology and engineering sector we can conclude that different factors influence openness across the stages. In addition, the influence of factors varies with the stages of the innovation process. This is the first study that has looked at openness across the innovation process. The insights from the study provide guidelines for managing openness in the innovation process of an organization.

Language Abstraction In Marketing Communication: Online Reviews Of Product Failure Context

Varsha Verma

Area: Marketing

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Although language is an essential component of word of mouth (WOM) there is limited understanding of how language used in WOM messages affects receivers. Extant research indicates that there are three dimensions of language: semantics (meaning of words), syntax (rules of combining words), and pragmatics (social interpretation of semantic and syntactic aspects). Prior research in the marketing domain has focused on investigating the effect of message semantics on consumer outcomes using attribution models. In this thesis, I investigate the importance of message syntax in negative eWOM and crisis communication. In particular, I apply the Linguistic Category Model (LCM) to examine the effect of language abstraction in negative eWOM on receivers' attitudes and buying intentions. Language abstraction is concerned with use of abstract and concrete words during interpersonal communication. Marketing studies have demonstrated the differential effect of abstract and concrete messages on attention and message persuasiveness. However, in these studies the abstractness in the message is manipulated through meaning, so with a focus on semantics instead of syntax.

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Utilizing data from over 1,200 participants in eight experiments, I empirically demonstrate the direct impact of high abstraction level in message syntax on increase in causal attribution and blame assignment towards the brand, and on decrease in perceived product quality, product attitude, and buying intentions. I also demonstrate that this effect is moderated by personal variables such as prior brand favorability and overload confusion proneness but is not moderated by product involvement. In addition to this, receiver's perceived tie strength with the sender, source expertise, and sender's name are found to moderate the relationship between language abstraction in negative eWOM and receiver outcomes. Finally, I empirically demonstrate the direct influence of language abstraction on consumers' attitudes and buying intentions in corporate communication in the context of crisis communication about a product failure. This thesis contributes to theory by exploring language abstraction as a new dimension in marketing communication and outlines implications for managers.

Understanding the Experiences of 'Not Knowing' in Workplace

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Area: Organizational Behaviour

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'Knowing' is respected, recognized and rewarded, and is the dominant discourse in organizations. The key for understanding and analyzing issues or problems or situations is often seen as 'knowing'. Amidst the emphasis on 'knowing', there is hardly any space for 'not knowing'. The idea of embracing 'not knowing' in management has received scant attention in the last decade in the form of the concept of 'negative capability'. The present study aims to understand: How do people in organizations deal with situations in which they have a sense of 'not knowing'? What shapes their response? Constructivist grounded theory methodology has been adopted in this study. The study focuses on the experiences of people occupying leadership and consulting roles. Thirty three in-depth, face to face interviews were conducted and analyzed. The themes that captured participants' experiences are (dis)comfort with 'not knowing', using rhetoric, flexibility, improvisation, 'extending mind' and letting go. Participants' experiences were shaped by their leader or consultant identity, past experiences, relational ties, position in hierarchy, organizational support and work culture. By providing emergent themes grounded in data, the study attempts to enhance the understanding about experiences of 'not knowing' and enrich the literature on 'not knowing', negative capability, leadership, consulting and identity. The study has implications for practice as well.

Keywords: 'Not knowing', negative capability, leadership, consulting, identity



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