Assessing the Impact of E-Government: A Study of E-Government Projects in India

In Information Technologies and International Development, 6(2), 2010, 109-27.

S. C. Bhatnagar and N. Singh

In recent years, there has been extensive investment in e-government throughout the developing world. Still, little is known about the impact of those investments, partly due to a lack of assessment guidance. This paper reports development of an assessment methodology that could be used in developing countries to justify investments in e-government, as well as to establish a performance benchmark for future projects. This framework identifies key stakeholders, dimensions on which the impact needs to be measured, and a methodology of measurement. Client value is measured primarily in two dimensions: 1) cost to the client of accessing services, and 2) perception by the client of quality of service and governance. In a limited way, the financial cost benefit impact to the agency implementing the project is also studied.

The paper takes India as its example location for application of the framework, presenting assessment results from eight e-government projects which estimate the difference between client ratings of computerized and (earlier) manual systems. Clients indicated an overwhelming preference for computerized service delivery, with reports of fewer journeys, less waiting time, and some reduction in corruption (marginal in places).

The results provided a tentative affirmation of the improvements that may be possible through the use of ICTs in delivering government services in developing countries. Overall impact showed wide variation across projects, highlighting the need to pay greater attention to process reform in the design of e-government projects. Measurement of direct monetary benefits to the clients provides a basis for determining the service fees that could be charged. An assessment of incremental
costs of processing a transaction can help evaluate the feasibility of a public-private partnership model.

The Government of India has adopted the framework used in this study to assess the impact of all mature projects implemented at the national, state, and local levels.

Judicial Legislation and Judicial Restraint

Anurag K. Agarwal

In the past decade, our courts have increasingly been enacting “judicial legislation”, taking on a task that is meant for the legislature and elected representatives. This trend reached a new high when the apex court recently “ordered” the Central Government to distribute food grains, found rotting for want of storage facilities, to the poor and hungry. The Prime Minister had to intervene to make it clear that the court was stepping into the domain of policymaking, an area meant for the executive.

New Environmental Stimuli, Challenges of Entrepreneurial Firms and Growth Leaps: Evidences from Multisector Case Studies

M. R. Dixit, Sunil Sharma and Amit Karna

This paper conceptualises and delineates five challenges faced by entrepreneurial firms in responding to the stimuli for growth provided by the new environment of globalisation, deregulation and liberalisation. It identifies key managerial actions that lead to growth leaps in the context of these challenges. It provides evidences from case studies in three different sectors—software, aviation and energy—in support of its contention. It also articulates how entrepreneurial firms miss the growth leap opportunity. Though the literature is replete with studies on enterprise growth, the knowledge about challenges in responding to growth stimuli provided by the new environment is limited. This paper is a contribution in this direction.
Unique Identification for Indians: A Divine Dream or a Miscalculated Heroism


Rajanish Dass

The Government of India, had announced the creation of the Unique ID Authority of India (UIDAI) to generate the largest IT project of the globe—the Unique ID (UID) project—with an aim to provide a unique twelve digit number to 1.2 billion residents of India. The Government of India has undertaken an initiative called “Aadhaar” to provide unique identification numbers to all residents of the nation.

The governments of various countries across the globe have been considering providing unique identity to its citizens from time to time. There have been many drivers that have actually led these governments to take a look into the possibilities of implementing a national ID scheme. However, the challenges related to implementing a viable identity management system for a nation are worth considering—most importantly, if citizens do not find value in such cards or the government departments and processes are not scaled up to match the working of such identification, the whole effort would be seriously questioned. Outrageous costs, technology gaps, privacy issues, political challenges, and lack of clear vision and mapping of the perceived benefits that can be accrued out of such an exercise are some of the factors that hinder viable and sustainable implementation of a national identity programme.

This paper, tries to put the current UID project of India into perspective to evaluate the set of issues and concerns, as pointed by various stakeholders and try to understand the degree of criticality of those arguments. Given that this is the largest IT project of any government globally, the topic is of immense significance besides being timely; the discussion can provide impetus to a series of research activities in the areas of public policy, Information Systems planning and execution as well as appreciating the risks that get associated with such large initiatives.

Crude Import for Mumbai Based Oil Refineries

Case Registration No. and Date: CIPR0008, 20-10-2010

G. Raghuram and Rachna Gangwar

In February 2006, Engineers India Limited (EIL) which was hired by Hindustan Petroleum Corporation Ltd (HPCL) had to submit its final report to HPCL. The report had to evaluate whether a single point mooring or an additional jetty would be more viable for HPCL’s increased crude import requirements through Mumbai port. Evaluation criterion included size of tankers that the facility would be able to receive; finances required for pipelines, storage tanks, and purchase/lease of land for storage tanks; sharing of investment with other stakeholders; build up of revenues; vulnerability to weather; jurisdiction of stakeholders; and management control.
Hero Honda: Multi-Segment Positioning and Selling
Case Registration No. and Date: MAR0418, 06-10-2010

Arvind Sahay and Nidhi Mathen

Established in 1984 and based in India, Hero Honda has become the world’s largest two wheeler manufacturer. Over the years, the company made inroads with its famous campaign ‘Fill it - Shut it - Forget it’ and also had grown to be the ‘World No.1’ two wheeler company in terms of volumes. The case examines the multi-segment emotion-based positioning approach taken by Hero Honda that is different from that of the competition. The objective is to: (a) evaluate the strengths and weakness of this approach in light of the competition’s actions and positioning; and (b) suggest ways to maintain and improve Hero Honda’s current position in the future given the growth of the market and the impending end of the joint venture agreement with Honda, Japan.

Noida Toll Bridge Company Limited: Financial Restructuring
Case Registration No. and Date: F&A0485, 04-06-2010

Sidharth Sinha

This case describes the design implementation and financing of a bridge over the river Yamuna near Delhi in a PPP mode. However, the bridge runs into financial difficulties and has to be restructured. The case discusses the restructuring process.

Universal Immunization Program
Case Registration No. and Date: CMHS0007, 10-05-2010

Sanjay Joshi, K. V. Ramani and Dileep Mavalankar

Immunization is one of the cost effective interventions to prevent a series of major illnesses particularly in environments where children are undernourished and may die from preventable diseases. The status of child immunization is a good indicator of equity, accessibility and outreach of healthcare services. In India, the Universal Immunization Programme was launched in 1985 and has achieved a coverage of 43.5% by 2005-06 as per NFHS 3. The case is helpful in discussing issues of planning, demand generation, logistics management and dealing with adverse effects. Team approach to providing immunization services can also be discussed.
Empathetic Innovations: Connections across Boundaries

Anil K. Gupta

Several motivations may guide the quest of a creative person for solving real life problems either faced by oneself or by others. Honey Bee Network has been documenting and valorising grassroots innovations and traditional knowledge practices for over two decades. In this paper, I review some of the lessons emerging from the innovations triggered by a feeling of internalization of somebody else’s pain [samvedana] exactly as one’s own. The concept of empathetic innovations resonates with the Gandhian philosophy in a very intimate sense.

In the first part, I summarise the journey of Honey Bee Network, the evolution of SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions) and the establishment of Grassroots Innovation Augmentation Network (GIAN) as a follow up of the International Conference on Creativity and Innovations at Grassroots held at IIMA in 1997. Later, NIF (National Innovation Foundation) was set up in the year 2000 to build a National Register of Grassroots Innovations and Traditional Knowledge besides bridging formal and informal science. Nine key issues discussed in the paper to amplify the concept of empathetic innovations are:

- Why does not adding value to people’s knowledge and creativity excite majority of young and old institutional scientists?
- Does wealth necessarily improve the propensity for risk taking and innovation or the lack of it, i.e., can poverty also be a trigger for innovation?
- Is frugality fungible?
- Whether the nature of motivation influences the incentives or disincentives for diffusion?
- Should national science, technology and innovation system be fertilized by the grassroots innovations in a fundamental manner?
- Do Gandhian methods still matter? Why did Gandhian institutions fossilize in the last six decades?
- Will incorporating innovations in the curriculum not trigger creativity early in life?
- Will creating a mobile and stationary museum of innovations help in transforming the minds?
- and Will Gandhian advice to youth for social engagement be still valid?

Risk Management Lessons from the Global Financial Crisis for Derivative Exchanges

Jayanth R. Varma

During the global financial crisis, no major derivative clearinghouse in the world encountered distress, while many banks were pushed to the brink and beyond. This was despite the exchanges having to deal with more volatile assets—equities are about twice as volatile as real estate, and natural gas is about 10 times more volatile than real estate. Clearly, risk management at the world’s leading exchanges proved to be superior to that of the banks. The global financial crisis has shown that the quality of risk management models does matter. Three import lessons have emerged from this experience:
1) The quality of risk management models can be measured along two independent dimensions: crudeness versus sophistication and fragility versus robustness. The crisis of 2007-2009 has shown that of these two dimensions, the second dimension (robustness) is far more important than the first dimension (sophistication).

2) An apparent structural change in the economy and the financial markets may only be a temporary change in the volatility regime. Risk models that ignore this can be disastrous.

3) Risk models of the 1990s, based on normal distributions, linear correlations, and value at risk, are obsolete not only in theory but also in practice.

Most of this paper deals with these lessons from the crisis of 2007-2009. In the final section, the paper argues that as derivative exchanges prepare to trade and clear ever more complex products, it is important that they refine and develop their risk models even further so that they can survive the next crisis.

Sardar Sarovar Project—Background and Overview


R. Parthasarathy and Ravindra H. Dholakia

This chapter provides an overall introduction to Volume I in the series of three edited volumes on the Sardar Sarovar Project on the River Narmada, setting out the importance, need and background to the project. It also provides summary of all chapters in the volume. The chapters in this edited volume include historical perspectives on this mammoth project, its design, planning and appraisal with a view to: a) understand and appreciate different viewpoints on this very controversial development project in the world; b) document some of the achievements of engineering and technological talents available in the country and the state; c) recognize the world class efforts put in by the state of Gujarat in planning details of the project; and d) provide opportunities to look at mistakes committed so that similar projects even if of smaller scale and dimensions can be better handled and implemented.

Bifurcation of the erstwhile Bombay State into Maharashtra and Gujarat took place on 1st May 1960. Both the states were largely agriculture based economies. However, geographically a large part of Gujarat was drought prone and highly water scarce. The River Narmada is the largest perennial river in Gujarat, and a major irrigation dam project on it was the answer.

Partial benefits in terms of drinking water and irrigation from the project from 2003-04 have started showing the positive impact on Gujarat’s economy. Although even one-third of the Narmada Command is not covered, the variation in the annual growth rates in agricultural income in Gujarat fell sharply. State income in Gujarat has remarkably accelerated in its growth since the 1990s when the major part of construction activities on the project was under way. It is expected that because of this project, Gujarat would continue to experience high agricultural and overall growth in next two to three decades, contributing substantially to the national economic growth and development.
The Dynamics of Bid-Ask Spread in an Order Driven Market: The Case of Indian Stock Market

Priyanka Singh

Bid-ask spread is the most important part of transaction costs for any asset class in the financial market. Market microstructure studies show that the type of market has a significant effect on the bid-ask spread. There are mainly two types of markets: order driven market and quote driven market. Liquidity is provided by the dealers in a quote driven market and by the limit orders in an order driven market. Due to different nature of the liquidity providers, the behavior of bid-ask spread differs in order driven and quote driven markets. Unlike the quote driven market such as that of U.S., where bid-ask spread has been studied extensively, there is a paucity of empirical work in order driven markets. Indian Stock Market provides an opportunity to investigate the behavior of the bid-ask spread in an order driven emerging market.

This study attempts to analyze the nature of bid-ask spread in Indian Capital Market with three main objectives: (1) estimation of the components of the bid-ask spread; (2) investigation of the time series variations in the bid-ask spread; (3) examination of the cross sectional determinants of the bid-ask spread. The sample consists of tick by tick data for the time period Jan., 2002 through Oct., 2008 of 160 stocks traded on National Stock Exchange of India. In the first part of the study, we estimate the bid-ask spread and its components (information asymmetric costs; combined inventory and order processing costs) and implied bid-ask spread using theoretical models. We find that all the models used in the study produce consistent estimates of the bid-ask spread as well as its components. In the Indian Stock Market, we find that the asymmetric information cost and the combined order processing and inventory holding are around 50 percent. We also find that the estimated bid-ask spread is approximately 80 percent of the quoted bid-ask spread. In our sample period, we find that the relative bid-ask spread has decreased over the years in our sample period.

In the second part of the study, we examine time series behavior of the bid-ask spread. We study the commonality in bid-ask spread and find that the Indian Stock Market has pervasive commonality in bid-ask spread with almost all the stocks showing this effect. Market wide bid-ask spread affects the bid-ask spread of almost all the individual stocks (>98.75 %). We also examine whether the introduction of the derivatives affects the bid-ask spread of the underlying stock. We find that there is a decrease in relative bid-ask spread of the underlying stock but this decrease is insignificant. We also examine the asymmetric nature of the bid-ask spread. Here, we investigate whether the negative returns lead to a higher bid-ask spread vis-à-vis positive returns. The relationship of negative and positive market returns as well as idiosyncratic positive or negative returns with bid-ask spread is not significantly different. Even large returns do not seem to be affect changes in bid-ask spread significantly. In order to understand intraday dynamics of the bid-ask spread, we study the intraday variations in the bid-ask spread. The intraday relative bid-ask spread as well as its components pattern are found to be reverse J shaped. There is a significant decrease in the relative bid-ask spread in the first 35 minutes of trading and a significant increase in the relative bid-ask spread in the last 30 minutes of the trading. We also study co-variation of intraday relative bid-ask
spread with intraday volume, intraday volatility and intraday trade size. The relative bid-ask spread is high when the volatility is high during the day. Intraday relative bid-ask spread is also high when the opening volume is high but it is low when the closing volume is high. This may be due to information based volume during the opening of the trading and less information based volume (day trading) towards the closure. Finally, it is found that intraday relative spread bid-ask spread is low when the intraday trade size is large. We examine the intraweek pattern of bid-ask spread and find that there is not much variation in relative bid-ask spread across the weekdays.

In the third and last part of the study, we investigate the cross sectional determinants of the bid-ask spread. Cross sectional determinants investigated are price, market capitalization, number of shares, trade size, volatility, percentage of institutional holding, promoter holding, book to market, and debt to equity. We find that relative bid-ask spread is positively related to volatility, debt to equity, percentage of promoter holding, and trade size. Relative bid-ask spread is negatively related to number of trades, market capitalization, percentage of institutional holding, and book to market. However, the results are statistically significant only for number of trades, market capitalization and volatility as the explanatory variables. We conclude that in a cross section of stocks, large market capitalization and highly traded stocks exhibit smaller relative bid-ask spread, ceteris paribus. We also conclude that more volatile stocks exhibit larger relative bid-ask spread in Indian Stock Market.

Strategic Innovation for Serving the Low-Income Segment
Shounak Roy Chowdhury

The literature on serving the ‘bottom of pyramid’ (BOP) argues that large firms can profit from serving consumer segments, traditionally considered uneconomical. This would call for ‘strategic innovation’, as it would involve a redefinition of industry norms. Here, a distinction is drawn between BOP and Low Income Segment (LIS), to avoid the controversy on whether BOP represents the societal bottom or not. LIS is essentially a segment with lower endowments than required for availing products/services in an existing industry structure, but have at least some discretionary income. The focus of this study is large firms, with established businesses, venturing into the LIS. In this context, there are two key gaps in the existing literature, which my study seeks to address. First, according to Prahalad (2004), serving the BOP/LIS would involve “challenging existing paradigms”. Yet, there are no studies to highlight why this would be required, and how engaging the BOP/LIS would differ from a mere low-cost innovation. Second, from the organizational perspective, undertaking successful strategic innovation involves two important aspects: venture specific knowledge and capabilities need to be developed (at the venture level), and the venture needs to be transformed into a source of strategic advantage for the undertaking firm (at the corporate level). Discussions, in the existing literature, are largely restricted to the tasks that need to be accomplished during the course of venturing such as forming alliances and focusing on product affordability. The functional capabilities that enable undertaking of the tasks and the role of dynamic capabilities in developing the needed new functional capabilities, shedding of old capabilities that are not relevant, and recombining them to transform the venture into a source of strategic advantage for the firm do not appear to have been mentioned.

Since the study pertains to an unexplored area, case methodology is adopted. Three ventures were selected for study: Shakti (Hindustan Unilever Limited), Microfinance (ICICI Bank), and Tata Kisan Sansar (Tata Chemicals Limited). Though different in terms of their product offering, the ventures are examples of large firms engaging the LIS, with varying degrees of success.

One of the key findings of the case analyses is that , serving the LIS consumers differs from catering to other low-cost consumers in that serving the segment is not merely
about dealing with consumers with extremely low levels of affordability but also coping with low levels of human capital and lack of access to basic goods. Delivery needs to be done through other external agencies or partners who often have very low skills. Given the relatively low margins, profitability from serving this segment is unlikely to be derived from a single or the core product/service offering alone.

The second key finding is that for addressing these requirements, some key functional capabilities that need to be developed which include addressing local needs and provide solutions-driven services; overcoming partner skill restrictions; augmenting the product/service portfolio; augmenting delivery partner productivity/margin; undertaking cost-centric innovation; and adjusting internal procedures to meet emerging internal contingencies. Another finding of this study is that not all ventures realize the need for adopting fundamentally different perspectives on value creation and profitability for serving the LIS. The other essential dynamic capabilities for LIS-specific strategic innovation identified are: capability to combine partner capability synergistically with firm capabilities, and capability to redefine the boundaries of engagement. The study also suggests that the firms need to stay focused on LIS and not lay too much emphasis on profitability in the short term. Though heat-shielding is required for any new venture, it is especially relevant in the case of LIS because it takes time to develop consumer insights and spot the emerging higher-order consumer needs.

This study shows that the culture of the firm, i.e., its ability to systematically document its experiences and learn from them; tolerance to the discouraging, initial lack of progress; ability to simultaneously have within the firm, one system for existing businesses and one for the new ventures; and the ability to accommodate partners with different cultures, seem to be important determinants of the success of the venture into LIS.

It is apparent from my study that LIS presents a new opportunity of exploration. There are certain strands of more focused research that may be undertaken. These include: development of economic models on LIS based on the presented arguments; the role of culture in LIS venturing; and the distance between the existing businesses and their LIS ventures.

Well-designed infrastructure development programmes play a key role in reducing poverty and ensuring environmental sustainability. The India Infrastructure Report 2010 emphasizes the need to align infrastructure projects with the goal of a low-carbon economy. Authoritative and insightful, the report examines legal and regulatory issues; financing infrastructure development; energy infrastructure; transport infrastructure; urban infrastructure; and rural infrastructure. It reviews the developments in individual sectors—ultra mega power projects, dams, highways, airports and construction projects. Incorporating case studies, the report offers valuable insights into the challenges faced by India in its infrastructure development journey.
studies from Delhi, Mumbai, and West Bengal, this report highlights policy initiatives taken by the government to achieve a low carbon sustainable economy.

**Managing Retailing**

**Piyush Kumar Sinha and D. P. Uniyal**

Managing Retailing is a comprehensive textbook designed to meet the needs of postgraduate management students. Based on original research, it provides an in-depth coverage of retailing theory and explains the key concepts of retailing through numerous illustrations, examples, exhibits, tables, figures, and case studies.

Beginning with a historical overview of retailing and a discussion on the theories of retail evolution, the book discusses the opportunities and challenges faced by retailers in India and other developing countries in Asia. It goes on to discuss shoppers and the phenomenon of shopping, retail store formats, store location, category management, and supply chain management. Finally, it discusses retail buying, store layout and design, point of purchase communication, pricing strategies and policies, store loyalty, the shop as a social construct, and technology in retailing.

The book, with its coverage of real-life case studies such as Fabmall, Food World, and Planet Health, would also be useful for professionals in managing day-to-day retail operations.
The Centre for Retailing (CFR) at Indian Institute of Management Ahmedabad was conceived in 2004 with the aim to identify areas and issues in the growing retail industry of India and develop analytical solutions for the industry that has direct or indirect impact on the end-consumer. CFR generates and dissemination of knowledge on retail management with the object of impacting management practices to improve the efficiency and quality of delivery of products and services for the consumer. It aims to develop relevant teaching and training material apart from fostering collaborative research in the field.

The Centre motivates academia to undertake research and consultancy projects related to different sectors of organized retailing. It conducts training programmes, workshops, seminars, and conferences to promote the activities of the Centre. The findings, ideas, and conclusions from research activities are widely disseminated to all possible stakeholders. CFR also provides necessary infrastructural support in terms of faculty time, space, and computational, managerial, and administrative support.

An interdisciplinary team of nine faculty members is engaged in research, training and consulting activities related to the objectives of the Centre.

Research and publications are an ongoing activity of the Centre; it has funded several research projects. Several research papers, working papers, cases, independent projects and a book have been published by the Centre faculty pertaining to retail. CFR has approved 5 proposals for research projects. It has 14 research publications and 8 working papers in national and international journals covering areas like format choice, distribution services, segmentation of shoppers, store choice using pos data, communication, promotion and pricing. The case studies of CFR cover a wide range of related subjects like business strategy in food retailing; customer service in auto retailing; managing loyalty programmes in book retailing; positioning in home and building products; concept development in pharma retailing; and layout in grocery retailing. The independent projects by PGP/ PGP-ABM/PGPX students span diverse topics which include private brands, technology adopted by retailer with special focus on biometrics, market basket analysis using pos data, store patronage, e-tailing: building loyalty, MNC entry into India: a case for Wall Mart, analysing the choice of single or multiple formats, and CRM for a bookstore. Centre’s faculty have published articles in Retail Newsletter, Footfall, by FICCI.

Centre for Retail conducts many courses Retail Management. Under the Management Development Programmes/In-Company Training Programmes, the Centre has offered several programmes for retail executives of several companies like HPCL, Infosys, TCS, Call One and IOC. The programmes are aimed at Middle and Senior Retail Executives working in the retail ‘vertical’. Since 2002 the Institute has been organizing Management Development Programmes on Retail Management.

In addition to participation in various national and international conferences, CFR faculty has offered consultancy to Ministry of Oil and Natural Gas, HPCL and RPG Cellucom.

http://www.cfr-iima.org