



सिद्धिमूलं प्रबन्धनम्  
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# Indore Management Journal

The Indore Management Journal is published by the Indian Institute of Management Indore, in the belief that management scholars and social scientists should integrate disciplines in an attempt to understand the complexities of contemporary management challenges.

We also believe that both researchers and practitioners can contribute by translating understanding into action, by linking theory and practice. These would enhance the relevance and thought in various related fields taking us a little outside traditional fields of management, such as sustainable development. We would like to draw special attention to our openness to such thinking as well as approaches.

This could entail working within one's area or crossing disciplinary boundaries. As an international journal, we also invite manuscripts from all countries. We welcome, too, proposals for special issues from potential guest editors. These should include how the topic or theme fits in with the Indore Management Journal's objectives. The descriptions of manuscripts (or the manuscripts themselves), along with author details should be submitted with the proposal.

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## Editorial

Educational institutions play a major role in transforming the society towards growth and prosperity. Based on his experience, Dr. Samuel Paul highlights the five pillars of institution building which helped in creating a solid foundation of Indian Institute of Management Ahmedabad. Professor V. L. Mote in his speech enumerates the difficulties faced by institutions in higher education to become world-class. Citing Professor Udai Pareek, Dr. T. V. Rao argues that institution building is different from management as it focuses on vision, future, trend setting, networking, culture building, mentoring, and empowering.

This issue brings out the regular mix of articles, cases, and book reviews. The article on 'The Behaviour of India's Volatility Index' primarily makes a case for the introduction of exchange traded volatility derivatives in India. The second article extends the literature by comparing under-pricing in two pricing methods. The issue of whether euthanasia should be lawful or otherwise is debated in our management case section and viewpoints of people from diverse backgrounds are presented. The perspectives section brings into discussion the strategic options for a firm during a downturn. There is a careful selection of book reviews covering State Bank of India, and Maruti Automobiles Limited, issues such as prospects of operation research in India, strategies for building a thriving global business and the importance of teachings of Chanakya in contemporary organizations.

### Editorial Team

Indore Management Journal

## VIEWPOINT

**Building Institutions: Lessons of Experience<sup>1</sup>****Samuel Paul**

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Why do some institutions thrive while others perish? Are there tested recipes that can help us build and sustain well performing institutions in our country? These are questions that occur to many a thoughtful manager and scholar. We may all have our own explanations of why institutions survive in some settings, and not in others. By and large, while we can narrate stories about good and bad institutions, there is as yet no well developed general theory about institution building and survival.

At the macro level, interest in the role of institutions in economic development has grown in recent years for several reasons. Governments and donor agencies have learnt that investment of capital alone does not result in positive economic and social outcomes. Nor can these outcomes be achieved by leaving everything to be decided by the market. The market system's strength is in coordinating activities through price signals. But there are many development problems that cannot be solved through the use of prices. The much adored market mechanism, for example, is not an option when public goods have to be created and externalities exist. Market failure may occur under many such conditions including when asymmetry of information prevails. Law and order, defence, public health, etc. are sectors where the desired outcomes will be achieved only through organizational interventions such as strategies, rules and enforcement mechanisms. Coordination through institutional devices rather than through the market mechanism is the right way to deal with many human and collective action problems. Even a business enterprise will function well only when a leader coordinates multiple activities. The functioning of the market itself calls for effective regulatory institutions. A market economy will function satisfactorily only when strong and well performing institutions are present.

In both the firm and the state, therefore, institutional arrangements and mechanisms play important roles. Both have participants who make certain contributions (e.g. workers who produce goods or sell them), and leaders who coordinate and monitor the processes and outcomes of the organizations. It is through a set of rules, norms of conduct, and organizational culture that leaders attempt to achieve their objectives. When direct monitoring is difficult or complex, trust and commitment often act as substitutes. Institutional arrangements refer to these rules, norms of conduct, culture and trust that hold an organisation together. The range and complexity of this package can vary widely.

The Post-1991 reforms experience can be used to illustrate these points. Reforms such as removal of licensing and exchange rate controls were relatively easy as they could be accomplished through executive orders and amendment of laws. Firms responded to these reforms without any other intensive institutional interventions. Other reforms such as infrastructure building and promotion of

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<sup>1</sup> Address delivered in the Eleventh Foundation Day Celebrations of Indian Institute of Management Indore at IIM Indore campus on October 3, 2010.

education and health have been more difficult as they involve multiple and complex institutions at different levels. Ensuring that organizations work together effectively and efficiently is not easy, especially when there is no private gain or incentive.

Let me now share with you a couple of recent cases of institutional failure that all of us have seen with our own eyes. The first is the shameful fiasco of the Commonwealth Games. It is a textbook example of how institutional failure can occur when no one is in charge. Here is a case where resources, clear objectives and urgency were not lacking. Yet the institutional system responsible for the given tasks was unable to deliver the desired outcome in time. The system components did not come together and the required oversight was simply missing. There was no leadership that claimed full responsibility to manage and orchestrate the complex organizations involved and get them to deliver on time.

Similarly, soon after the Ayodhya judicial verdict in Lucknow, there was a press conference at the Media Centre that showed what the absence of institutional arrangements can do. A press conference needs a moderator who ensures some order and gets the participants to do their part in sequence. The audience is then given a chance to ask questions of the speakers. But in Lucknow, we saw how a bunch of lawyers came out of the Court, grabbed the mikes and started speaking simultaneously. There was no moderator in sight nor could anyone hear what was being said. It was an example of the utter failure of planning, coordination and orderliness displayed for all the world to see that involved only a simple activity. Do we need more evidence to see why our public institutions function so poorly?

Many books have been written on what lies behind the success and growth of business organizations. Phenomena such as market competition, new technologies, and quality of leadership, are some of the factors some scholars have attributed to the differential performance of business enterprises. Others have highlighted the role of astute corporate strategies, and the ability to adapt organizational structures to changed contexts as the key determinants. Prescribing a "mantra" for institutional success, however, has not been easy.

In a comparative study of six successful development programmes from different countries, I have shown that their secret of success could be traced to the "good fit" of their strategy, structure and processes. The detailed arguments and evidence can be found in my book, *Managing Development Programs: The Lessons of Success* (Westview Press, 1983). One of the cases I studied was India's dairy development programme, widely noted for its success. I have argued in this book that much of leadership is about coordinating and orchestrating the convergence of these three key variables in the organization.

Education is a key sector of the economy that depends heavily on a variety of institutions. Governments guide and decide on policies, but the provision of education calls for numerous organizations that act as service providers on the ground. For these organizations to function well, regulatory institutions need to be put in place. This responsibility is usually performed by governments or bodies created by the service providers themselves. Although service providers such as schools or colleges compete among themselves, the quality of their performance depends a great deal on the health of their organizations and the accountability enforced by the regulatory system and civil society.

In the field of education, we have examples of institutions which have survived and performed well for centuries. Oxford, Cambridge, Harvard, etc. are universities that still maintain high standards and are in great demand. In India, many of our universities that are just a hundred years old have deteriorated and are not held in high esteem. It is not uncommon to see institutions declining soon after the departure of their founders or early leaders. External factors or unexpected crises may explain some of these failures. No institution, however, has control over such events. The question still remains, what are the factors behind the success of some institutions and the failure of others?

Though contextual differences matter a great deal in institutional survival and growth, the underlying factors can be best brought out by taking examples of successful institutions. One case in which I had the privilege of participating in the early development of IIM Ahmedabad (IIMA). Most observers would agree that IIMA continues to be regarded as a leader among its class of educational institutions. Its survival, growth and performance over the last 50 years make it a fit subject for a systematic study of the factors that contributed to its success. I have not made a thorough study of how IIMA has been sustained over the past 50 years. I suspect, however, that it has something to do with how its foundations were laid.

The pillars of institution building that created a solid foundation for the development of IIMA were fivefold:

- **Leadership:** The early leaders of IIMA crafted a strategy that created a shared vision among the stakeholders, and that paid attention to the design and implementation of the programmes to be launched. I consider Dr. Vikram Sarabhai and Shri Kasturbhai Lalbhai as the major contributors to the process of crafting the original strategy. Though the original government plan was to set up one of the two proposed IIMs in Mumbai, these two leaders managed to pull the new Institute to Ahmedabad. They mobilized the financial support of leading industrialists of Ahmedabad, and successfully negotiated with the Government of India (GOI) to locate the Institute in their city. That the business and government leaders of Mumbai were less organized and late in responding to the GOI plans for the IIMs helped their cause. Dr. Sarabhai also won the support of the Ford Foundation and Harvard Business School for the new project. It is an early example of a public-private partnership in India. During this initial period, Dr. Sarabhai acted as the honorary director of the new IIM, a role that enabled him to pay close attention to both strategic and operational decisions pertinent to institution building. Plans for the launch of the flagship programme, the two year PGP and the 3-Tier Management Development Programme were also designed under his watch. Professor Ravi Mathai, who succeeded him as the first full time director, ably built on this foundation and deepened and refined the strategy.
- **The strategic role of collaboration:** The technical partner's (Harvard Business School) role in faculty development and its sharp focus on long term institution building constituted the second pillar of IIMA's development. HBS's role went far beyond the conventional notions of technical collaboration. The flagship programmes of IIMA were patterned after the HBS model. There was a Harvard team on the campus that jointly taught courses and conducted

field research and writing with the young Indian faculty. This, however, was only one of the contributions of HBS. More important were the role that the HBS team played in faculty orientation and development in the early years through structured courses at Harvard, and the hands on advice and assistance it provided for the management of the Institute, on aspects such as administrative practices, academic autonomy, and the values and norms that should govern its operations. Though the formal collaboration ended after five years, IIMA continued to draw upon HBS for faculty development, faculty exchanges and teaching materials for several more years.

- **GOI's autonomy enhancing role:** Senior officials in the Ministry of Education and the Planning Commission played a key role in ensuring that a governance system is put in place that balanced the duties and responsibilities of the key stakeholders. GOI agreed to a fair measure of autonomy for the Institute. Dr. Sarabhai's negotiations with the concerned ministries were influential in this regard. Control through an Act of Parliament as was done for IITs, was not insisted upon by GOI. Letting the faculty engage in consultancy and earning a share of the income was a new practice that IITs at that time did not enjoy. Though the annual budget of IIMA was met by GOI, the Board was made responsible for the use of the funds and to make personnel decisions. The Board had adequate representation from industry, and was free to co-opt other members. Courses and curricula were determined by the faculty. All these were departures from the practices being followed in other government funded institutes at that time.
- **Institutional processes and practices:** As noted above, nearly 25 faculty members had gone through programmes of one to two years at HBS in the first five years. They had, therefore, a shared vision of how the programmes at IIMA should be designed and conducted, and of their own role in building the institution. Whether it was about the curricula, admissions or new programmes, the dominant role was played by the faculty in decision making. There was once an occasion when Dr. Sarabhai argued with the faculty on the criteria for admission to the PGP. Finally, however, the director had to reluctantly give in as the faculty were able to present a more convincing case in support of their stand. The faculty's sense of ownership of and commitment to the programmes of IIMA were consequently significant. Academic decisions were made not based on hierarchy or authority, but rather, on the strength of knowledge and reason. And, directors like Vikram Sarabhai and Ravi Mathai respected it.
- **The pillar of professionalism and integrity:** The stakeholders in an institute like IIMA are multiple and varied in their interests and concerns. A coalition of this nature can be sustained only when all participants are convinced that the underlying processes are well managed. From its inception, IIMA was fortunate that its leaders were able to create a track record of decisions and actions based on high professional standards. Though there have been occasional conflicts among stakeholders, no one in the early years could point a finger at a director or Board member of acting without integrity or in violation of the standards they had set for themselves. In matters of admission, external pressures were ever present. There was, however, no instance that any one could point to as a violation of accepted policy. When complaints arose, they were discussed in the Board openly and sorted out. Unlike in many other institutions, the faculty nor the Board ever asked for quotas or special privileges in admissions. A remarkable



case was that of a former Board chairman, Shri Kasturbhai Lalbhai's grandson being denied admission to the PGP at IIMA. I came to hear about this only after he was rejected. Kasturbhai used to meet me at Board meetings, but never said a word about this matter either before or after the event. These traditions, established very early, enhanced the credibility and reputation of the Institute and made it easier for its succeeding leaders to resist undue external pressures.

The final outcome is determined by the convergence and reinforcement of these five pillars. Blending and orchestrating them is the very essence of leadership. How each of them is crafted and sustained also matters. Leaders like Vikram Sarabhai laid the foundation on which IIMA stands today. But if those who succeeded him had failed to build on it, institutional decay would surely have set in. The most appropriate metaphor that captures the process involved is a relay race. Each relay team passes the baton on to the next team. It is only when every team runs hard and performs well that institutional survival and success will be assured.

### Author's Profile

**Samuel Paul** is the Chairman of the Public Affairs Centre in Bangalore, a think tank and citizen action support group. He also currently serves as a consultant to several national and international bodies. For the major part of his career, Dr. Paul has served as Professor of Economics and later as the Director of the Indian Institute of Management Ahmedabad. He has also been a World Bank Advisor in public sector management and has been involved in a variety of global public sector reforms. Dr. Paul has served as Chief Technical Advisor to the International Labour Organisation and as Special Advisor to the United Nations Commission on Transnational Corporations. Dr. Paul has taught at several US universities and Business Schools, including Harvard and Princeton. Dr. Paul has served on several Government of India Committees and has been a member of the boards of several companies. He has also served on the boards of several international research centers, including CGIAR committees and the World Development Report Advisory Panel. Dr. Paul is the author of several books and numerous professional articles within economics and management.

## Institution Building

V. L. Mote<sup>1</sup>

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### Need for this Debate

A discussion of the challenges we face in building world-class educational institutions of higher learning is timely and opportune. It is timely because, to succeed now, a nation must develop its economic, scientific and technological capabilities so that it can compete with the best in the world. A nation cannot get this competitive strength without developing world-class educational institutions within its boundaries. Without MIT, Harvard, California Institute of Technology and other such renowned institutions, would America have got its industrial, economic and military might? Therefore, if India wants to shake off the 'third world country' label, then the responsibility of doing so must fall on the shoulders of the nation's elite academicians. They must identify the nation's impediments in building world-class educational institutions and remove them with the greatest urgency. For, leaving this task to the Indian politicians and bureaucrats would mean condemning our present and future generations to live forever with the label of 'third-world-citizens.'

The recent US India nuclear deal and the Indian IT firms' outstanding success across the globe are tributes to India's higher educational institutions. These institutions have given the nation the best scientists and technologists who, in turn, have brought glory to India. Without the Indian Institute of Science, could Bangalore have become the global centre for microelectronics? Could the recognition that India got as a responsible nuclear power been possible without BARC's outstanding contribution to the development of the nation's nuclear capability?

### How to Judge our Institutions?

While we must publicly applaud the institutions of higher learning for their contributions to the Indian society, we must not rest content with their achievements. How do we judge the performance of the institutions of higher learning? Should their contributions to building the nation be an important yardstick in judging their performance? What impediments do these institutions face in achieving global standards of excellence? We must constantly ask these questions to avoid falling in the deadly trap of complacency and mediocrity.

We can use the following yardsticks commonly used to judge the performance of educational institutions of higher learning: How many Nobel laureates have our educational institutions produced? How many patents have our technological institutions got? How many world-class research journals, widely acclaimed by scholars in the respective fields, do we publish in India?

From 1913 to 1998, six Indians got the Nobel Prize. If we include Sir Naipaul in the list of Indians who have won the Nobel Prize, the number in our list would increase to seven. However, we must note that Sir Naipaul is of Indian origin but is not an Indian citizen. Further, of these seven, only four were Indian citizens when they got the Nobel Prize and only three out of these four

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<sup>1</sup> Address delivered in the National Conference on Challenges in Creating World Class Educational Institutions organized at IIM Ahmedabad in honour of Professor J.L. Saha on the occasion of his superannuation from the services of the Institute.

lived in India. To see how dismal this performance is, we need to see the number of Nobel laureates that MIT has produced in different fields. The statement in its web site about the Nobel laureates in MIT is illuminating, and therefore I reproduce below some excerpts from this statement:

Sixty-one current or former members of the MIT community have won the Nobel Prize. They include 25 professors, 24 alumni (including three of the professors), 14 researchers, and one staff physician. Twenty-six of the Nobel Prizes are in physics, twelve in chemistry, thirteen in economics, eight in medicine/physiology, and two in peace.

The sheer number of Nobel Prizes that the MIT community has won, by any standard, is impressive. The wide range of subjects in which it has won the Nobel Prizes is, in fact, more impressive than the mere number of Nobel Prizes that it has won. This list of prizes spans nearly all the prize categories from physics to economics to peace.

It is hardly necessary to stress the beneficial impact these Nobel laureates have on the quality of education in the educational institutions to which they belong. They do teach courses for beginners, giving them rare insights into the subjects that even the best of professors would find it difficult to provide. Therefore, is it surprising that many of these beginners blossom into high-calibre researchers? Thus, the presence of these Nobel laureates produces a virtuous circle. These eminent persons produce high-calibre researchers who, in turn, become Nobel laureates and the circle continues.

The dismal record of Indian educational institutions of higher learning in producing Nobel laureates has a natural corollary which is that their performance in publishing high-quality research journals or getting many patents is not very much better.

We can, of course, argue that the financial resources at our disposal are nowhere near the financial resources that either MIT or Harvard has. Therefore, is it correct to expect that we would match their performance in producing the number of Nobel laureates these universities produce? There is some merit in this argument but it is not entirely convincing. India was not even a sovereign nation when Rabindranath Tagore and Sri C V Raman won the Nobel Prize. In addition, the financial resources that India has now are far more than what the nation had in the early 20th century. Undoubtedly, availability of financial resources does matter in producing high-quality research. However, the zeal for doing research and the environment that creates a passion for undertaking such research matter even more.

### **Institutions' Contribution to the Economy**

The other argument is that the Indian educational institutions of higher learning are under considerable pressure to address the practical problems that the nation's industry and governments face. Therefore, the educational institutions use their resources more for applied research and less for basic research. Perhaps our educational institutions would be more comparable to the educational institutions in Japan or in Switzerland where the emphasis is more on applied research and less on basic research. This argument is also not very convincing. Let me cite three observations in support of my point.

The Economic Survey, 2005-2006, highlights the need for achieving high productivity levels in Indian manufacturing industries. Also, it points out the productivity growth that Indian manufacturing has

achieved. While Japan and Korea have distinguished themselves by achieving outstanding levels of productivity in manufacturing, their Indian counterparts are floundering. Have the institutions of higher learning failed the Indian manufacturing industries trying to upgrade productivity?

The flagging levels of productivity in Indian manufacturing industries cause more concern when we see it along with the large deficit in the current account for the year 2005-2006. The reason for such a large deficit was the rise in non-oil, non-bullion imports.

The economists argue that such a sharp rise in imports is because of the high imports of capital goods which the nation's industry needs because of its rising exports. Therefore, they conclude that this large deficit in the current account need not be a cause of concern. We would accept this argument if the Indian industries' productivity was high and rising. However, as I have pointed out earlier, the productivity in the Indian manufacturing has declined in the post-reform period. Therefore, the high current account deficit is symptomatic of a deeper malady in India's trade pattern.

My concern is that the Indian industry is importing high-value-added products and services and exporting low-value-added products and services. In other words, we are importing sophisticated submarines and fighter aircrafts and exporting 'four dollar garments' and low-priced, small cars such as Indica and Santro. If our trade pattern continues on these lines, then we are abdicating our responsibility to "provide high and rising standards of living to all citizens." Are the institutions of higher learning aware of this impending danger? Are they willing to face the challenge of working with the governments and industry to change the pattern of trade? Would these institutions point out that the nation must import less sophisticated products and export more sophisticated products?

### **Reasons, Responses and Responsibility**

Why did we come to such a sorry pass? I believe there are four reasons. First, the governments did not do their job of pushing and challenging the educational institutions to upgrade educational standards. Rather, they did the opposite by forcing the educational institutions to take students and faculty on relaxed standards. Second, the institutions of higher learning surrendered to this demand without innovating alternate methods for addressing a genuine societal problem. Charging low fees to keep the cost of education low was the third reason for the debacle that we are now facing. Lack of demand for highly educated and skilled persons from independence till 1998 is the fourth reason for our present plight.

The society has given the institutions of higher learning the responsibility of creating highly educated, skilled and responsible persons for the society. These institutions, therefore, must maintain high standards of education and convince the outside world that they are doing so. In addition, they must also convince the outside world that their education is not merely confined to imparting knowledge and skills. The education they impart also inculcates values that help the students in controlling their senses, training their understanding and finding a path to attain wisdom.

### **Author's Profile**

**V. L. Mote** was a Professor at Indian Institute of Management Ahmedabad from 1962 to 1993.

## **Beyond Management: Some Conceptual Contributions of Professor Udai Pareek to the Modern World<sup>1</sup>**

T. V. Rao

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***"A man literally is what he thinks, his character being the complete sum of all his thoughts. As the plant springs from, and could not be without, the seed, so every act of a man springs from the hidden seeds of thought and could not have appeared without them"***

*James Allen*

Great Gurus like Dr. Pareek have spent their entire life time professing certain things by self example, and living in certain ways that spread desirable values for the good of the present and future societies. Dr. Pareek had done this for over 85 years. We are all fortunate to have had his presence and wisdom in this period from 1925 to 2010 and wish it was much longer.

I have taken a theme close to Dr Pareek's heart. The thoughts shared in this lecture are extracted largely from one of his books- Beyond Management. The thoughts expressed in this book are relevant not only for today's world, but also to the future of organizations (inclusive of public, private, governmental, non-governmental), to our country, other countries, the global society and the entire mankind at large. In my view what Dr. Pareek gave us through his books and writings, as well as his thoughts, and actions is of relevance and significance to the future generations of all - not only various organizations in this country but entire humanity at large.

For most of you who do not know Dr. Pareek, he did his B.A. from St. John's College, Agra (Agra University), 1944, B.T. Teachers' Training College, Ajmer (Agra University), 1945; M.A. (Psychology), Calcutta University, 1950; M.A. (Philosophy), Agra University, 1952 and Ph.D. (Psychology), University of Delhi, 1956. He also did his diploma certificate in Research Methods from Italy. As his biography would indicate Dr. Pareek widely travelled and experienced living in most countries representing the modern world ranging from the USA to Europe to Asian and South Asian countries like Thailand, Indonesia, Singapore and Malaysia. His students are spread across continents of the world; Australia and Africa to name a few. He admired all cultures and people from different countries and for the same reason he had very close friends in all parts of the world.

I met Dr Pareek in 1968 for the first time at the Administrative Staff College of India after his return from the USA. Then he joined the National Institute of Health Administration and Education (NIHAE) at New Delhi. I was in correspondence with him as a student of Osmania University and tried unsuccessfully to get a fellowship to work with him in the USA. I was already in employment at the Andhra University, Waltair and started the Department of Psychology and Parapsychology with Professor K. Ramakrishan Rao. The year 1968 was about half way in Dr. Pareek's professional life and was the beginning of my career. Since then, I am fortunate to have been associated with

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<sup>1</sup> Address delivered on 23rd March, 2011 in the Udai Pareek Memorial Lecture for the Jaipur HRD Network Foundation, Jaipur.

Dr. Pareek for almost 42 years which constitutes my entire professional life. In these 42 years we had co-authored or co-edited 15 books and also edited two journals (Indian Behavioural Sciences Abstracts and Indian Psychological Abstracts).

There are many contributions Dr. Pareek has made. For this lecture, I would like to take up the themes that are dearer to Dr. Pareek and his original contribution. The most important of them in my view are his concepts of Extension Motivation and Role Efficacy and his conceptualisation of Decision Making and Institution Building in Educational Institutions. Also are his related concepts of Dependency Motivation and other motives. His conceptualisation of the Principles Underlying HRD is more relevant even today and is certainly ahead of our times. I will deal with them one by one and draw implications for future emulation, action, research and dissemination.

### **Extension Motivation and Extension Values**

As early as in mid sixties Dr. Pareek proposed the concept of Extension Motivation in his seminal articles on the New Paradigm for Development published in the Journal of Social Issues and International Social Science Journal (Pareek, 1968).

To summarise, the concept extension motivation simply means a need or a desire to extend oneself or the ego to others and relate to a larger group and its goals. It means a motivation for helping others, working for larger goals that benefit larger groups or society. It also means an ability to sacrifice one's own comforts and desires for the sake of others. It is this powerful motivation that has led to many great people to make sacrifices for the good of the larger community. All great preachers and saints have led a simple life and taught people to lead simple life. Mahatma Gandhi said Earth provides enough to satisfy every man's needs, but not every man's greed- it elucidates that the nature earth has enough resources and means to meet the basic requirements of a man but it can't serve the endless greed of man. Here he also meant implied to help the needy people of the society. Dr. Pareek proposed that it is extension motivation that causes any given society to develop. "A super-ordinate goal probably arouses this motive. Such goals may therefore be important not only in developing harmony but also in sustained motivation of people in development" (Effective Organizations, Pareek 2002, p. 120).

#### **Box 1: Super-ordinate Goals**

*(source: Managers who Make a Difference: IIMA Books, New Delhi: Random House, 2010)*

Super-ordinate goals are not ordinary goals. They are meant to serve a larger principle. In creating and working towards these goals, a person derives satisfaction from the feeling that she is existing for a cause. Perhaps she was born for that. As one starts doing good work, others begin to appreciate them. With every good deed the person gets more power, appreciation and recognition and this has a tremendous force. Take the example of Sarath Babu, the IIMA graduate who decided to set up his own 'idly factory' immediately after his studies at IIMA instead of taking up a high paid, secure job. He has become a success story and a role model for many management graduates to emulate. Recently he narrated an incident about a troubled, young girl who was about to end her life. She came across Sarath Babu's story and was so inspired by his achievements that she decided to live and make something of herself. It is incidents of this kind that

help build one's determination to work for super-ordinate goals even though they may be weak at first.

Super-ordinate goals give individuals a high sense of efficacy. Mahatma Gandhi worked for an independent India adhering strictly to the principle of non-violence. This was the driving force that enabled him to make several sacrifice and it was this ability to make sacrifices, not seeking power for him and leading a simple, immaterial life that made him the greatest leader on earth. He derived his values from his family and what he read when was young. He was most influenced by the stories of Harischandra and Shravana Pitrubhakti Natak. He experienced the power of Ahimsa in the way his father reacted to his confession that he stole.

Dr. V Kurien is another example of a supeordinated goal achiever. He worked single-mindedly to make India self sufficient in milk production and was the architect of Operation Flood, the world's largest dairy development programme. Mr. Narayana Murthy of Infosys started with a long-term goal of liberating information technology and generating wealth to be distributed among a large number of those who work for Infosys. After creating Wipro, Azim Premji started devoting his time to nation building and has been promoting education in rural India. They are all examples of super-ordinate goal seekers.

All organisations in the corporate or voluntary sectors are concerned about motivating their personnel to work for organizational or social goals, which go beyond an individual's own perceived interests, and to promote collaboration, and commitment to super-ordinate goals. Extension Motivation addresses itself to this. Extension Motivation is also reflected in co-operation with others for achievement of a common goal, faith and trust in members of a group, and involvement in goals, which concern not only oneself, but also large groups, community or society. Various dimensions of extension motivation may be: helping people who need it, collaborating with others, empathising, risking one's comfort or safety for others, sacrifice, patriotism, hospitality, etc. Experiencing, reflecting, hypothesizing, conceptualizing and experimenting are the chief ingredients of the process of learning in a laboratory setting. The EM Lab will utilize experience-based learning as the main training method. Dr. Pareek had designed and conducted a few laboratories using this concept.

I consider this as very appropriate in today's circumstances when both India, at macro level and at micro level, and the world at large is witnessing certain vents that threaten the mankind. These events include scams that have shaken the very basic fabric of a country, unethical and irresponsible dealings by some of the corporate sector leaders who sacrificed basic values and long term interests of the company or the country for immediate financial gains. Incidents like these result in confusion in the minds of people and loss of faith on professionals and professionalism. In my view the reason behind the scams and unethical activities like insider trading, fudging of accounts etc take place essentially because of **greed and selfishness**. This greed and selfishness is obviously on the increase. **In my view Extension Motivation and Extension Values are antidotes to such diseases.** They work both as antidotes to cure and even prevent selfishness and unethical exploitation of others for short term gains of a few.

In this context I must mention that his long term friend and colleague Dr. Prayag Mehta has been

doing a lot of work on similar lines. Dr. Mehta's conceptualisation of Social Achievement and Development Motivation are particularly relevant to note here (Mehta (1994 and 1995). Prayag Mehta has observed in his book on **Social Achievement** that the pace of development has been slow. "Studies emphasize that importance of organization, participation and motivation along with public action for achieving such development goals. People are motivated by the need for social achievement and for acting on the environment for obtaining better quality of life and work" (p 1, Mehta, 1994). I am not going into details but Prayag Mehta's writings are of great significance in promoting development motivation particularly among the government agencies and agents and social achievement among the poor. In both these concepts Dr. Pareek's Extension Motivation seem to be part, though Prayag Mehta's concepts go far beyond a single motive and have great implications for development interventions..

To give a few examples of persons who lived with extension values and motivation are Mahatma Gandhi and Mother Teresa and in recent times Abdul Kalam and Kiran Bedi also demonstrate extension values. See the box below:

### **Box 2: Extension Motivated Leaders**

We all know little bit of Mother Teresa. One incident that is narrated often is when Mother Teresa went to a bakery man for bread for her orphan children. The story goes that as she raised her arms, the bakery man just spat on her hand. Then Mother Teresa told him, I would keep this for me, but give me some bread for my children while holding her another hand. On that spot, the bakery man realized Mother Teresa's gentleness and become a main bread donor for her orphanage. She started Nirmala Bhavan to look after orphans and disabled, and now it is spread throughout India. All through her life she worked for the poor and destitutes.

Mahatma Gandhi lived a simple living and worked for the country following the principles of non violence. When Mahatma Gandhi was travelling on a train, one of his shoes slipped off onto the track, and he could not have picked it up, he promptly threw the second one also on to the track. When asked why he did that apparently he answered that when someone finds the first shoe the second one will help him to have both and use them. That is reflective of extension attitude.

Dr. Kalam took up academic pursuit as Professor, Technology & Societal Transformation at Anna University, Chennai from November 2001 and was involved in teaching and research tasks. Above all he took up a mission to ignite the young minds for national development by meeting high school students across the country. Dr. Kalam is an extremely simple man. He is above seventy and a bachelor. He is a strict vegetarian and teetotaler. He is a 'work alcoholic' who knows no holidays in the seven day week. He works 18 hours a day. He is fond of music and spends his leisure hours practicing the lute (Veena). He is a great lover of books. He is a voracious reader of both 'Bhagvad Gita' and 'Kuran'. Dr. Kalam quotes, "for great men, religion is a way of making friends; small people make religion a fighting tool".



Kiran Bedi has been devoting her life during her working life as well as now for social causes working with NGOs. While in service wherever she was posted she showed high concern for larger causes and tried to serve the people courageously and assertively.

If I analyse the people behind the scams, insider trading, fudging of accounts or cheating the public, that has largely come from those who were born in early independent India - in 1940s and 1950s and perhaps a few born in sixties. I believe those born around that time were born in an independent yet insecure India. They had high aspirations and a few of them perhaps did not have the patience to put in hard work. As an outcome of which, they started resorting to short cuts. They were perhaps born in a "subsidy" country, a country of reservations and a country where the government is supposed to "give" than "take". Their ambitions resulted in greed out of which they indulge in unethical activities. Such greed is not the property of some but unfortunately many. *If this greed characterised the youngest and upcoming generation (gen Y or Gen Z) then the country has no great future. To prevent this epidemic from breaking out, we need a strong medicine. Extension Motivation is not only a good medicine to cure but a great medicine to prevent. We need to inculcate the same right from childhood, through schools colleges and education and corporate training programs. I also like to propose the term "Extension Value" to be added to our list of desirable values.*

Dr. Pareek had written his book "Beyond Management" in 1981. He revised it in 1984 and again in 2002 and re-titled as "Effective Organizations". He dedicated the first volume to Ravi J Matthai, the second one to T V Rao and the third to Rolf and Ronnie Lynton a unique couple engaged in institution building across cultures. It is not unusual for Dr. Pareek to dedicate his books to his students. He dedicated one of his books to his disciples -Dr. Mahindra Singhvi and Dr. Narendra Dixit. This is something to emulate and speaks of the person.

In what forms do Extension Motivation figures out in Dr Pareek's writings?

Two articles of Dr. Uday Pareek "A Motivational Paradigm of Development" published in Journal of Social Issues 1968, 24(2), 115-122 (and also in Indian Educational Review, 1967, 105-111) and the second one on "Motivational Patterns and Planned Social Change" published in International Social Science Journal, 1968, 20(3), 464-473. Both appeared in the book on Effective organizations.

**In his article on Motivational paradigm for development, Dr Pareek gives simple formula that**

**Development = (Achievement Motivation X Extension Motivation) - Dependence Motivation**

**If you want socio economic development to take place increase achievement motivation and extension motivation and decrease dependence motivation.**

Motivation occupies an important position in the dynamic process of social change. The paradigm Dr. Pareek suggested is:

**"Motivation causes human Behaviour, and to that extent "causes" changes in a community, like increased entrepreneurial activity or adoption of new methods. But I don't view it as a primary cause of change in human society. Motivation is a strong and important link in the dynamic causal cycle of human evolution" (p 117).**

**"According to this paradigm, a specific societal system generates a specific pattern of motivation and system of values which strengthen it, sustain it and ensure its continuity. Behaviour of people in the society is caused by dominate motivation in that society which in turn has been generated by the social system. This is perhaps a mutually confirming or reinforcing cycle".**

Extension motivation is defined as the need to extend the self or the ego and relate to larger groups and its goals. A super-ordinate goal probably arouses this motive. Such goals may therefore be important not only in developing harmony, but also sustaining motivation of people in development.

**Poverty: Using this paradigm Udai Pareek explained poverty as a consequence of low achievement motivation, low extensional and high dependence motivations. He explained further to say that low achievement results in disproportionate risk taking, interest in chance and not control, lack of interest in feedback, high interest in friends and not experts, and low activity and initiative. Similarly low extension results in lack of regard for others, lack of trust and faith in others resulting selfishness or self centeredness, and lack of cooperation. High need for dependency results in avoidance, fear of failure, seeking favour from supporters, and aggressively rejecting authority.**

### **Lessons from Dr. Pareek's Extension Motivation for Future of Nation Building and Institution Building:**

- We must create an extension culture in India where (a) people value sacrificing their own conveniences for the sake of others and the larger goals; (b) they are willing to sacrifice short term gains for long term good; and (c) they become considerate about future generations and leave the planet for their safety and healthy living of future generations.
- We make policies that are driven by extension motivation and future.
- Extension values and related family of values should be promoted and taught in schools, colleges, families everywhere.
- Extension motivation and value based films & stories that promote the work done by social reformers and others should be made available to the public at large. Some industry groups are already making efforts in this direction.
- Corporate sector is genuinely motivated by concern for the welfare of the larger society and undertake CSR activities out of such genuine concern and values than as a business strategy.
- The government and various ministries make policies that truly reflect concern for the welfare of the society and long term thinking rather than short term goals. For example the Finance Ministry may look at the extent to which tax laws are promoting development of the country than merely increasing tax collections in a particular year somehow to meet immediate needs. Other governance systems are made extension friendly.

- Award ceremonies to felicitate those who help others to be organized.
- Extension motivation and extension value to become a core value of the country and the education system.
- Recruitment to teaching, health and other social service professions is based on extension value.
- Scholarships are instituted for that exhibiting extension motivation.

## Institution Building

In his book *Beyond Management*, Dr. Pareek postulated, while tracing the history of management and differentiating it from Institution Building, the following: Administration was replaced by Management. Management should be replaced by Institution building. Administration has been concerned with successful maintenance of an organizing, and its running according to laid down rules and regulations.

Management brought in changed emphasis and is primarily concerned with efficiency, i.e. accomplishing tasks with minimum resources. In recent years, in addition to concern for efficiency, organizations are striving for two other aspects: continued growth and development (self renewal) and creating a larger impact on a segment of the society or the entire society. For public systems the importance of both these aspects is too obvious. The first edition of the book had 13 chapters, the second edition had 36 and the last one expanded to have 43. The intention of the book is to help transform organizations into institutions. While Management is concerned with getting results, stability, quality, effectiveness, strategy, achievement motivation and competence; Institution building focuses on vision, future, trend setting, networking, culture building, mentoring, extension driven and empowering.

Dr. Pareek differentiated Institutions from Organizations. To him "Institutions are distinguished by their mission, values and impact on society".

**Institutions should be agents of change in the society and the community. Knowledge utilisation is a focal point of Institution impact on the community. Institutions have self renewal process.**

One main contribution of an institution is to generate new values in the society or into the field of its operation. The nine criteria suggested by Dr. Pareek for Institution Building are:

1. Attention to process
2. Significance of goal or uniqueness of the filed- urgent social needs
3. Innovative nature
4. Autonomy
5. Generating new values
6. Impact
7. Multiplication of know how

8. Linkages
9. Development of people

**Udai proposed a new value framework as:**

1. From elitism to populism
2. From Percolation to growth
3. Centralism to decentralisation
4. Isolated professionalism to dialogue

**Udai identified the following frameworks for decision making:**

1. Feudal framework which is based on ownership by a few. Dependency is the main motivation.
2. Bureaucratic framework which is based on rules, procedures, control and the likes. Main motivations are control and affiliation; and relationships are political and clique formation.
3. Managerial framework is focused on efficiency. Relationships are task driven; motivations are achievement and power driven.
4. Institution building framework where health and organization's growth are primary concerns. Collaboration, extensions and creativity are the motivation patterns.

**Box 3: Institution Builders**

In my view the physicist and founder of ISRO (Indian Space Research Organisation), Vikram Sarabhai, and Ravi Matthai, the founder of IIMA, are two great institution builders. Sarabhai built a number of institutions in different fields, most importantly in space and management. Ravi Matthai promoted his belief of professionalizing management and actively demonstrated in his own life how management should enter all sectors.

Take IIMA. The symbols that differentiate people are minimal here. Every faculty member gets the same-sized room and each one, irrespective of their designation, shares the same secretary and privileges. You charge the same consulting fee irrespective of the designation. You are addressed as professor, irrespective of whether you are a professor or assistant professor. There are no departments and there are only areas. The term 'area' signifies a broad categorization. You may be a member of more than one area, group, or centre. You may also change areas. All these are organizational mechanisms to create a larger identity and bring down the overheads or transaction costs associated with management of the system. IIMA follows most of the principles Udai enumerated.

(Reproduced from T. V. Rao. "Managers who Make a Difference": IIMA Books: Random House, 2010. )

## Lessons for Future:

Heads of educational Institutions, Vice Chancellors, MDs, CEOs, Ministers and all those heading Government and Non-Governmental agencies should understand these principles of Institution building.

First they should respect and imbibe this Institution building role as a part of their role. Their appointments, socialisation, performance reviews, incentives and continuance in office should be subjected to a review of the extent to which they understand and follow the above conceptualisation and values of Institution building.

They should be super ordinate goal driven, less dependency driven, and more achievement driven. Then only will we have great Institutions built.

As recommended by Dr Pareek, Institution builders and heads of Institutions should be assessed and trained on the following roles and the extent to which they are discharging their roles:

1. Identity creation role or the extent to which they promote unique identity for their organizations and at the same time ensuring societal contributions of the institution;
2. Enabling role in which they develop a variety of resources in the institution including human resources;
3. Synergising role in which they ensure collective contributions and collaborative culture make the organization integrate various resources systems and achieve more than the sum of its parts;
4. Balancing role where they balance conformity with creativity and short term with long term goals and activities;
5. Linkage building role where the CEOs create linkages required with external agencies and subsystems;
6. Futuristic role where they develop the capability to anticipate the future and future changes and prepare the institution to meet these needs or creates its own future;
7. Impact making role where the institution makes both internal impact through its achievements and climate it creates as well as the external impact in terms of influencing the policies in the field in which it operates; and finally;
8. Super-ordination creating role where the top executive gives a sense of fulfilment to its members by deeply connecting what they do to the larger good of the society.

## Role Efficacy

Extending the concept of Sense of Efficacy to the role Udai Pareek formulated a term called "Role, Efficacy" (Pareek, 1983). According to these formulation individuals with high degree of role efficacy, carry with them different perceptions and feeling of their role. Role efficacy is defined as the potential effectiveness of an individual occupying a particular role in an organization. It consists of making your role the way you like (role making), feeling important and central in the organization through

your role (role centering) and linking various aspects of the role to make it stronger (role linking). The various dimension of role efficacy include:

1. Self Role Integration: Where the role provides individual with greater opportunity to use his/her special strengths. Integration between Self and the Role leads to higher role efficacy while distance between the Self and the Role leads to low role efficacy
2. Proactivity: Proactive Behavior (taking the initiative) contributes to higher efficacy. While reactive behavior (merely responding to the expectations of others) contributes less to efficacy. Lack of opportunity to take initiative leads to low efficacy
3. Creativity: Opportunity for creativity and innovation increases role efficacy while performing only routine tasks becomes harmful for high role efficacy.
4. Confrontation: Confronting problems and reaching a relevant solution contributes to higher role efficacy while avoiding problems or shifting problems to others leads to low role efficacy.
5. Centrality: A person's perception of the role as central to the organization contributes to high role efficacy while a person's perception of the role as peripheral is likely to lead to low role efficacy.
6. Influence: The more influence/power a person is able to exercise in the role, the higher the efficacy.
7. Personal Growth: Person's perception of the role as providing opportunity to grow and develop leads to higher role efficacy while a perception that the role does not provide the opportunity to develop contributes to low role efficacy.
8. Inter-Role Linkage: Linking one's role with others' increases efficacy. Joint efforts in identification of problems, problem solving etc, increases role efficacy
9. Helping Relationship: Person's perception that help is available when needed, leads to higher role efficacy. while a perception that respondents are hostile leads to low role efficacy
10. Super ordination : Opportunities to work for super ordinate goals have the highest role efficacy while a perception that performance in a role is of value to the organization, leads to higher efficacy

Factors contributing to role efficacy include: A participative climate, higher job satisfaction, climate promoting concern for excellence, use of expertise, and concern for larger issues and an innovation-fostering environment.

Consequences of high role efficacy are: Less role stress, less anxiety and work related tension.

Persons with high role efficacy tend to rely on their own strengths to solve problems, use more purposeful behavior, are active and interactive with people & environment. They persist in solving problems, inclined to growth, exhibit attitudinal commitment while adopting a positive approach.

They have a high degree of satisfaction with their jobs and role in the organization.

Of all the things that make a manager successful is the self image the person carries with him/her. The self image is like a shadow. It is known by different terms and ways. The related concepts are self respect, self confidence, ego, sense of efficacy, self concept, self worth, sense of inner worth etc. People with high sense of values and super ordinate goals share a feeling that they exist for others etc.

#### **Box 4: Efficacy**

*(Source: Managers who make a difference by T. V. Rao: IIMA Books: Random House, 2010)*

Consider the following responses by two of IIM graduates, both IITs toppers and IIM rank holders. Both were employed as executive assistants to the marketing director of two different organizations in two different cities. Both of them were working in similar companies. When the author visited them six months after they were employed and asked them to describe their job and how they were enjoying it, the conversation was something like this:

**Person A:** I am not sure what to say. I must admit that I am not at all comfortable doing what I am doing. I am not doing anything significant. When the HR head and one of the line managers came to the campus for recruitment they drew a great picture about this company and my job. I was promised a number of things and none of that has happened. I came here with the expectation that I will have an opportunity to use my talent. Being an IIT topper and IIM rank holder I came with eagerness to participate in strategy formulation, making marketing policies, influencing pricing, deciding marketing budgets, and helping the company and the director of marketing implement them. I was given a nice office next to the senior vice president (SVP). It was a good cabin and had all facilities. I was happy in the beginning but soon I was quite disillusioned to discover that my job has nothing to do with policies and strategies. I sit next to the SVP to act more like his secretary than as a manager. I am supposed to maintain his appointments though a secretary assists him, and it almost amounts to my doing the job. I am supposed to coordinate the visits of various customers and vendors. You know what that means. It means booking their hotels, arranging their transport, making their appointments, arranging their meetings, settling their bills, etc.-all clerical jobs. Then I am supposed to arrange the weekly and monthly marketing meetings for the department as well as the other departments. It means booking the meeting rooms, setting the agenda, circulating the agenda, taking down the minutes, getting them approved by the boss, ensuring that coffee and tea are served during the meetings and incurring the wrath of the boss in case of delays, etc. There is no strategy and there is nothing here to learn. I get my salary on time which is of course a great thing. However, Professor, I am wasting all my talent and keep feeling what a gap there is between what you all taught and what we are doing here. I feel that I should get out of this place after a year.

**Person B:** Thank you Professor. I am quite happy here and am learning a lot. I sit next to the SVP Marketing. He is a person with twenty-five years of experience and has worked in three companies before he joined here. He is not an MBA but more than an MBA in terms of his experience and thinking. However, he is not exposed to systems and I help him a lot. For example, I am required to maintain his appointments. He does not have a secretary but I help him as his executive assistant. I have developed an electronic diary on Google and after two months, began to help him to analyse the way he was spending his time. It helped him a lot. He discovered that 30 percent of his time goes into unplanned activities. He now regularly consults me and asks for my feedback on how to make his role more effective and strategic. I have also begun to mentor some junior executives which he requested me to do after my analysis of his schedule.

I manage the customers and other visitors to this company. It was a little difficult in the first two weeks as I was new to this company but it gave me an opportunity to learn about it. I went to each HOD and asked them to give me a brief so that I could brief the customers who visit us about the various functions of the company. Now I know the company perfectly. I book the hotel accommodation and transport for the visitors and customers. Each one has their preferences. I have explored all the hotels in the city and now have all their details, the concession they give, etc. I also know the customers' preferences of hotels and have knowledge about the taxi system and various vendors of taxi services. This task of arranging their transport and hotels gave me an opportunity to explore the city. I am supposed to book the meeting rooms and ensure that the discussions are minuted. I kept quiet and observed for the first three weeks. After the fourth meeting I pointed out to the boss that the decision taken at the meeting is problematic as the pricing they decided on, ignored some variables. My boss appreciated my input and started involving me in the discussions. Now he consults me on the agenda and also relies totally on me to maintain and manage the minutes and follow-up of the decisions taken. I have also gained a lot of his confidence. This company gives me a great opportunity to learn and use my capabilities. I am happy and am learning and almost feel that I am the SVP Marketing.

Which of them is likely to be more effective?

The answer is obvious. Person A views everything negatively and expects learning to come to his doorstep while person B takes initiative and sees an opportunity to learn in everything including administrative tasks. He is confident, takes initiative, applies his knowledge anywhere including minor issues like maintaining the schedule of his boss, booking hotel and transport for customers, and managing minutes of departmental meetings and booking meeting rooms and support services. The first one has a fixed mind and treats everything as a burden. Obviously the second person is likely to be more effective.



## Lessons for action:

Corporations and Institutions should relook at the role efficacy of their employees to ensure that their role efficacy increases in order to create the right atmosphere in the organization. Particular attention should be paid to the dimensions of "Super-ordinate goals" and "Helping", "Growth" "Proactivity" and "Creativity" parts of role efficacy.

As Robin Sharma in his recent book on Leadership observed organizations should link pay cheque with purpose. Organizations should interpret their goals and objectives properly and highlight for the benefit of their employees the larger impact they are trying to make on the society.

## Human Resources Development and OD

Udai Pareek identified the following Principles underlying HR Systems (conceptualised in 1975 and I had the good fortune of doing this with him jointly for Larsen & Toubro)

1. **Focus on enabling capability:** The main focus of HRS should be to help the company increase what may be called its "enabling" capabilities. These capabilities would include development of Human Resources in the company, development of total organizational health, improvement of the problem solving capability, developing diagnostic ability so that the problems in the organization can be quickly, timely, and effectively located and solutions attempted without dependence, and developing a healthy open system so that maximum commitment of the employees can be obtained. HRS, in this sense, becomes an important system underpinning various other functions and strengthening them through its programme.
2. **Integrating the development of people with organisation development:** Any HRS should aim at the development and multiplication of Human Resources. Every human being has certain capacities and potential to do certain things. Human beings are not very often aware of their own strengths. It requires another human being to point out one's own strengths. HRS should provide enough opportunity for each individual to become aware of his potential and thus make maximum possible contribution in his various organizational roles. It is certainly not possible for any organization to provide scope for complete exploration of individuals' talents and potential. However, HRS should offer maximum opportunity through appraisals, feedback, counselling and experimentation in various roles. An organization like L&T offers enormous such opportunities.
3. **Maximising individual autonomy and growth through increased responsibility:** Learning experiences get maximized when individuals have opportunities to experiment and also hold the responsibility for outcomes. Such learning experiences on the job have a great value for the individual and the organization. Employees start enjoying their jobs more and develop themselves better if their jobs offer them some flexibility and autonomy to innovate. HRS should attempt to help employees assume more responsibility through autonomy in decision making and experimentation.
4. **Decentralisation through delegation and shared responsibility:** People who work together or close to each other know each other better than those who do not have such opportunities to be together. HRS should be based in such a context. Identification and

development of human resources becomes an integral part of every manager's job. The system can only maximize opportunities for managers to take this responsibility. In fact, the central office can only perform monitoring and service functions, and identification and development functions should be shared by every employee/ officer in the organization. The units/ regions should increasingly take the initiative in these matters, with the central office providing necessary monitoring, policy making, and system development facilities.

5. **Participative decision-making:** Dealing with human beings is a sensitive area for any organization to handle. No matter what innovations are made and what opportunities are provided there are likely to be frustration. People tend to feel frustrated when they are not consulted in matters in which they have enough knowledge and information. Design matters in which they have enough knowledge and information. Design of HRS or any of its sub-systems must give adequate weightage to the ideas and existing resources of people. It should attempt maximum participation or representation of people who are likely to be involved in its implementation or are affected by it.
6. **Balancing adaptation to and changing organizational culture:** HRS does not have any standard form and has to be evolved for each organization according to its nature and its culture. While designing HRS, it is necessary to take into consideration the nature and culture of organization for which it is being designed and at the same time it should be designed to suit the prevalent culture of the organization and the intended direction of change. The role of HRS is not only to perpetuate such culture but to modify it for increased effectiveness. There has always been a controversy between those who believe that HRD or any parts of HRS like appraisal system should be designed to suit the culture and those who believe that such systems should be able to change the culture. Both extreme positions seem to be less functional. HRS should not make the company stay where it is; it should take it forward. However, this can be done only if its design does not severely conflict with the prevalent culture, but at the same time has elements of change and evolution towards the future.
7. **Balancing differentiation and integration:** With increase in expertise in HRS, the three distinct functions need clearer identity. These functions are: personnel administration, organization development and training, and industrial relations. Putting these three functions under one person may not do justice to them since there is a distinct identity of these three functions. Time has come that this differentiation is not only recognized but is built into the design of HRS. However, integration of these three functions is also necessary because they have inter-linkages and may require mutual support. This can be done, as we state in another principle, at a fairly high level. Such integration along with necessary differentiation would be necessary to make the function effective.
8. **Balancing specialization and diffusion of the function:** While HRS is a specialized function and should be treated as such in the organization, its special identity should not result in lack of involvement of line people in various aspects of HRS. Since action is the sole responsibility of line people, HRS should strengthen their role. This can be done by diffusing part of HRS amongst the line people. For example, simple personnel administration like sanctioning of leave, disciplinary action, dealing with conflict problems, etc. should be handled by the line people themselves. If necessary, they may have help from a personnel man. Without such diffusion,

the personnel function may only be used for escaping the responsibility of administering personnel effectively. Certainly, specification of systematic practices would be necessary but this has to be supplemented by the participation of line people in some of the HRS activities.

- 9. Ensuring responsibility for the function:** Unfortunately, in most companies, HRS does not have much credibility for several reasons. One main reason is that this function is at a very low level in the organization. Unless the HRS is introduced at a high level in the organization, its respectability will continue to be a very low. Moreover, unless a very senior person is in-charge of HRS, the insightful and creative leadership, which is required to make the function effective, may not be provided. For this reason, it is necessary that HRS be instituted at a very high level in the organization to increase both its visibility as well as its usefulness.
- 10. Balancing linkages within and with other functions:** HRS should be designed to strengthen various functions which are important in the company. For example, it should have linkages with the budgetary and other information control systems. It should have linkages with long-range corporate planning, with marketing finance and production and other functions of the company. Such linkages are extremely important. On the other hand, linkages amongst the various sub-systems of HRD are also necessary.
- 11. Building feedback and reinforcing mechanisms:** The various sub-systems in HRS should provide feedback to strengthen one another. Systematic feedback loops should be designed for this purpose. For example, performance and potential appraisal should provide necessary leads for training and work redesigning etc. A systematic plan of flow of one subsystem to the other should be properly prepared.
- 12. Balancing quantification and qualitative decisions:** While quantification of various aspects in HRS is necessary, everything cannot be completely quantified. This applies as much to selection and recruitment as to performance and potential appraisal. Attempts should be made to continuously improve and quantify several variables and even to design computer storage of various kinds of data. But the qualitative and insightful decisions will always be necessary and desirable. For example, while promoting people, various quantitative data may be useful. These may be used as necessary inputs, but some other factors which cannot be quantified will have to be taken into account while taking the decisions. Such a balancing is necessary.
- 13. Balancing internal and external help:** HRS would require development of internal expertise and resources. However, the company should see the optimum pay-off in terms of employing their internal or external resources. Some highly rare expertise which may be available from external resources has to be used only occasionally in the organization. Thus may not be developed internally in the system. Such a balance is necessary. Similarly, the use of external resources in terms of training should be used minimally, but cannot be completely ruled out. A judicious planning for the use of both is necessary. A company which is completely closed to external resources and is doing everything internally may not be able to benefit from some of the latest developments in the field. On the other hand, a company which is merely relying on external help either in training or on other aspects of HRS cannot develop itself effectively.

- 14. Planning for evolution of the function:** HRS cannot be established overnight in a company. Some aspects can be introduced depending on the state and sophistication of the company. Some other aspects would require longer preparation before these are effectively introduced. Rushing the introduction of all the aspects of HRS may only result in ritualism rather than effective introduction of the system. Introduction of HRS, therefore, should be properly phased, and there should be enough thinking about how these phases will be completed and build one over the other.
- 15. Continuous review and self renewal:** The environment and the organizational culture keep changing with time. However innovative a system may be, there is always a danger of it becoming ritualistic and dysfunctional after sometime. Therefore it is necessary to plan any system in such a way that it has mechanisms of self renewal. HRS should provide in it mechanisms for continuous review and change.

### Greed and OD

*(Excerpts from a key note address at the M. S. University Baroda, February, 2011)*

Divisiveness continues. It spreads from caste and religion based divisiveness, to political divisiveness to linguistic, regional, colour, education, health, batch, sector, section, department etc everywhere. Some divisiveness for improving the disadvantaged is fine but divisiveness leading to self destruction of a large part including that of the Nation is not acceptable.

We seem to live today in a scam driven world. Every day morning you wake up to hear what new scam has been unearthed. Starting with Satyam in the corporate world to CWG, 2G, Adarsh Housing, Mining and Land grab to everywhere. The nation's time is taken away for protesting against MPs, MLAs and various other agents who should be spending their time in Nation Building.

Are the Indian corporations safe from this? Has OD brought in certain amount of integrative outlook in our corporations? In a world where organizations are built and developed to sell than to build more, has OD done some good? Organizations built by the sweat capital of many people suddenly get sold and the employees discover that they belong to a new management and a new organization that they have not heard before and they need to learn a new culture. . This has become the world order and India is no exception. Sometimes it appears that we are truly in the business of business and not that of service. In the past organizations used to be set up to serve others and in the process make some money to sustain themselves and grow. Today it appears that some organizations are being set up to make money and money alone. Even hospitals performance is being measured by the numbers in monetary measures rather than patients served and benefits to society. Government performance is also being measured by the numbers of schools and hospitals set up rather than what they are doing after they are set up.

In other words short term orientation emerging out of greed has become the order of the day. The concept of service to society and working for larger cause is being

forgotten except occasionally, when we talk of corporate social responsibility. Even this CSR gets reduced to projects to take care of the neighbourhood rather than getting integrated into everything that we do in our corporations.

I have argued that Udai Pareek's OCTAPACE (Openness, Collaboration, Trust, Authenticity, Proactivity, Autonomy, Confrontation, and experimentation) values should now be expanded to include Extension Value. And all HRD and OD work should be reoriented to this in view of the need to build a strong and healthy world for our future generations.

### Lessons:

It is high time that organizations of all forms conduct an HR Audit or Social audit of themselves, and their programs to renew themselves. This may extend to the political parties and particularly youth wings of political parties and various government agencies and nongovernmental development agencies and agents.

It is also high time we understand and assimilate the OCTAPACE values always so intensely promoted by Dr. Pareek.

*In the end I like to conclude from a quotation from James Allen, "Man is made or unmade by himself, in the armory of thought he forges the weapons by which he destroys himself; he also fashions the tools with which he build for himself heavenly mansions of joy and strength and peace. By the right choice and true application of thought, man ascends to the Divine Perfection; by the abuse and wrong application of thought, he descends below the level of the beast. Between these two extremes are all grades of character, the man is their maker and master".*

Let all noble thoughts descend on us characterise our being with inspiration from the writings of great Gurus like Udaiji.

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## Author's Profile

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## The Behaviour of India's Volatility Index

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### Abstract

This study examines the behaviour of India's volatility index (Ivix) that was launched in 2008. By using linear regressions, autoregressive models and unit root tests, the study tries to empirically answer whether Ivix reflects certain characteristics known as stylised facts of volatility. The results of the study show that the volatility index reproduces almost all the stylised facts such as volatility persistence, mean reversion, negative relationship with stock market movements and positive association with trading volumes. However, the negative relationship between market returns and volatility is observed only during market declines. As the index mirrors most of the empirical regularities, the study primarily makes a case for the introduction of exchange traded volatility derivatives in India. Institutional investors can make use of the over-the-counter derivatives such as variance/volatility swaps to gain from portfolio diversification. This is the first study evaluating the performance of a volatility index that is constructed and disseminated by an organised exchange in an emerging market.

**Keywords:** volatility index, persistence, clustering, mean reversion

### 1. Introduction

It is quite common, in the realm of economics usage of indices that are summary measures, to gauge macro trends in price rise or exchange rate movements. In stock markets too indices are used to figure out the broad market sentiment whether the mood is positive or negative. In India, the popular stock market indices are BSE Sensex and Nifty. Similarly to gauge the market anxiety there is a requirement for an indicator and that latent need of the market observers and practitioners is addressed by a volatility index.

A volatility index measures the expected volatility in a given market over a 30-day period (in general). It measures the expected fluctuations in the market index and hence serves as the proxy for overall market's riskiness. A higher (lower) value for the volatility index indicates that market expects greater (lesser) fluctuations in either direction over the next 30 days. Just as increases in the Sensex are applauded by the market, an increase in the volatility index alarms the market, since an increase in volatility index means an increase in uncertainty, which results in discomfort for most market participants. In fact this lead to its epithet "the investors fear gauge". Whaley (2008) states two important uses of a volatility index. First, it serves as a reference point of short-term volatility, and second, it allows trading of pure volatility. Construction of a volatility index is a lot more challenging than any other index, since the index is supposed to measure a quantity that is unobservable. This seemingly difficult problem was cracked by the erudite work of Whaley (1993) that laid the foundations for its introduction. In fact the most tractable meaning of the volatility index is given by Whaley (2000) wherein a parallel is drawn with the yield to maturity of a bond.

In 1993, Chicago Board Options Exchange (CBOE) became the first exchange in the world to introduce a volatility index and named it VIX. Towards the end of that decade most of the stock

exchanges in Europe and the North America had come up with volatility indices that are predominantly modelled similar to that of CBOE's VIX. The global financial crisis of 2008 clearly and strongly demonstrated the utility and need for volatility indices. Since the volatility indices became the primary indicators of jitteriness in the market, they became quite popular as the financial media reported them side by side with the market indices such as Dow or the S&P 500 index. The only emerging market with a volatility index calculated and disseminated by an organised exchange is India. National Stock Exchange of India Limited (NSE) introduced the country's first volatility index, India Vix (Ivix), in April 2008. The design and construction methodology of Ivix [1] is quite similar to that of the current VIX calculation methodology adopted by CBOE.

A study of the behaviour of Ivix is essential for two reasons. First, it provides feedback on whether the index is fulfilling its purpose. Second, sooner or later trading of products linked to this volatility index may commence and it is quite imperative to examine the index for its performance and characteristics. This paper attempts to evaluate and examine the behaviour of Ivix since its inception. The behaviour of Ivix is evaluated from a different perspective by questioning whether Ivix reflects certain characteristics known as stylised facts [2] of volatility. If Ivix is able to reproduce and replicate most (all) of the predominant empirical regularities, it can be reckoned as serving its objective. The most important stylised facts are the following:

1. Volatility clustering and persistence.
2. Volatility is mean reverting.
3. Volatility is negatively related to stock returns.
4. Volatility is positively related to trading volumes.

The next section presents the evolution of volatility indices followed by Section 3 that examines the statistical properties of Ivix. Section 4 investigates empirically the conformance of Ivix to the stylised facts, and Section 5 presents the conclusions.

## 2. Evolution of Volatility Indices

The idea of a volatility index similar to a stock index was initially mooted by Gastineau (1977) and Galai (1979). Fleming et al. (1995) and Whaley (1993) provided the methodology for the construction of the VIX; however, in over 10 years there is a major change in the computation methodology. Initially VIX was calculated as implied volatility backed out from the Black-Scholes option pricing model. Since Black-Scholes model is based on the assumption of geometric Brownian motion with constant volatility, the implied volatility from this model is at best an approximation of the true risk-neutral volatility. Britten-Jones and Neuberger (2000) provided a method for computing the risk-neutral expectation of the return variance from the prices of European options without resorting to any option pricing model and only assuming that the process is continuous. Especially, they proved that the risk-neutral expected sum of squared returns over a future time period is given by a set of prices of options expiring at a future date (their Proposition 2). An important advantage of this approach is that all available liquid options (in particular out-of-the-money options) are used instead of few options used in the earlier methodology. This approach became the basis for construction



of volatility indices, and CBOE was the first exchange to use the model-free methodology to compute VIX. Subsequently this methodology has become the industry standard with almost all the exchanges (barring a few exceptions such as the Montreal Exchange that still uses Black-Scholes model to compute the volatility index) adopting the same.

Carr and Wu (2006) characterise the volatility index (to be precise rather) as an approximation of the variance swap rate of same maturity. A variance swap is an over-the-counter contract which pays off the monetary value of the difference between realised variance over the life of the contract and a fixed variance swap rate. At inception the variance swap has zero market value, and in order to preclude arbitrage, the variance swap rate equals the risk-neutral expectation of the realised variance which a volatility index aims to measure.

### 3. Statistical Properties

This study examines the empirical behaviour of *lvix* over the period November 1, 2007, to February 28, 2010, and the data are obtained from NSE's web site. Figure 1 depicts a time series plot of the Nifty index and *lvix* movements over the period November 2007 to February 2010. In conjunction with the descriptive statistics from Table 1 it can be noted that on an average *lvix* hovered around 37.36%. The average *lvix* is found to be approximately close to the annualised standard deviations of returns ( $2.39\% \times \sqrt{250} = 37.79\%$ ). *lvix* reached the maximum value of 85.13% on November 17, 2008, almost during the peak of the global financial crisis, and a minimum of 20.98% on January 14, 2010. During the period under consideration the median closing level is 35.54%, and 50% of the time it ranged between 43.11% to 29.23% (a range of 13.88 percentage points) and 90% of the observed time it closed between 57.09% and 24.94% (a range of 32.14 percentage points). Looking at the higher moments it can be inferred that *lvix* data series is leptokurtic. The Jarque-Bera normality test indicates that the hypothesis of a normal distribution is strongly rejected. The average of daily changes in *lvix* (*dlvix*) indicates that it is not statistically different from zero; hence, it may be concluded that there is no discernable and significant trend in the *lvix* changes.

### 4. Empirical Examination of Stylised Facts

**Stylised fact I:** Volatility clustering and persistence. Observed in the early sixties of the past century by Mandelbrot (1963), this refers to the characteristic that large (small) price movements tend to be followed by further large (small) movements. In other words, periods of high volatility will be followed by high volatile periods and tranquil periods followed by tranquil periods. In particular, shocks to volatility are persistent; hence, current information is valuable in forecasting future volatility. This particular feature - volatility clustering - has led to the development of the ARCH/GARCH class models of volatility. Most often cited explanation for volatility clustering is that the information arrives in chunks and hence volatility clusters. The work of Engle et al. (1990) lends support to this hypothesis. Econometrically this can be verified by the autocorrelation function of the volatility series. The statistical significance and slowly decaying autocorrelations at different lags stand testimony to the volatility clustering and persistence.

**Table 1: Descriptive Statistics**

	<b>lvix</b>	<b>dlvix</b>	<b>Nifty Returns</b>
Mean	37.36	0.02	0.03
Median	35.54	0.11	0.06
Standard deviation	10.44	4.46	2.39
Kurtosis	1.72	22.08	5.52
Skewness	1.16	0.07	0.17
Minimum	20.98	40.00	13.01
Maximum	85.13	34.07	16.33
Jarque Bera	195.47***	11386.2***	714.13***

\*\*\*Significant at 1%.

lvix is in levels;  $dlvix_t = lvix_t - lvix_{t-1}$  and Nifty Return =  $\ln \left( \frac{Nifty_t}{Nifty_{t-1}} \right)$ .

**Figure 1 Evolution of Nifty and Volatility Index (lvix) 2007 - 2010**

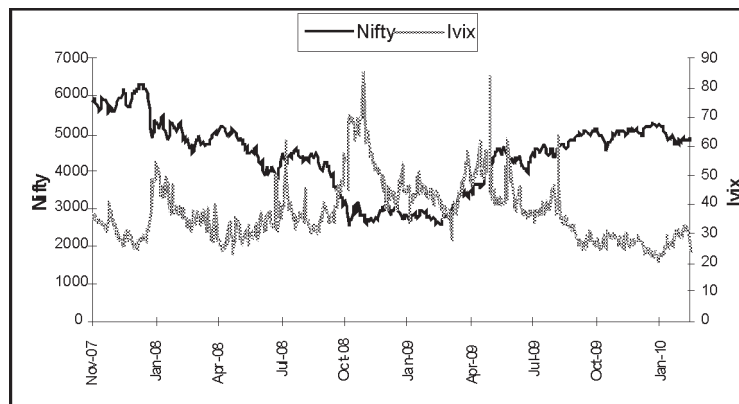


Table 2 presents the autocorrelations of lvix and the values of the standard Ljung-Box portmanteau test for the joint significance of the first 22 autocorrelations (about one month of trading days). The Ljung-Box statistics strongly reject the null hypothesis and holds the presence of autocorrelations. The statistically significant correlation coefficients confirm that the lvix series is positively serially correlated. Therefore, it can be concluded that the volatility persistence and clustering characteristic is manifested by the volatility index.

**Table 2: Autocorrelation Coefficients of Iviz in Levels**

LAG	ACF	Q-stat	P-value	LAG	ACF	Q-stat	P-value
1	0.9075	471.1083	0.000	12	0.667	4312.2	0.000
2	0.8797	914.5776	0.000	13	0.6423	4553.257	0.000
3	0.8538	1332.98	0.000	14	0.6174	4776.423	0.000
4	0.8322	1731.254	0.000	15	0.5918	4981.818	0.000
5	0.815	2113.86	0.000	16	0.5843	5182.375	0.000
6	0.7984	2481.733	0.000	17	0.5571	5365.079	0.000
7	0.7761	2829.947	0.000	18	0.5466	5541.236	0.000
8	0.7504	3156.051	0.000	19	0.517	5699.104	0.000
9	0.7352	3469.651	0.000	20	0.4995	5846.786	0.000
10	0.7175	3768.885	0.000	21	0.4736	5979.769	0.000
11	0.6982	4052.697	0.000	22	0.4477	6098.816	0.000

**Stylised fact 2:** Volatility is mean reverting. Mean reversion is generally understood as the tendency of prices to fall (rise) after hitting a maximum (minimum). Similar patterns are observed in stock market volatility too. Though there will be bouts of high/low volatility in due course it will return to its long term average level. In the literature various ways were used to test mean reversion. One approach is to test whether the data are stationary through a unit root test. As a first check a t-test on the unconditional mean of first differences of Iviz is conducted. The t statistic at -0.1145 (P-value = 0.9089) shows that the null hypothesis of zero mean cannot be rejected. This is followed by conducting unit root tests [3], namely Augmented Dickey-Fuller test (ADF) and Phillips-Perron test (PP). The difference between these tests is in the method of dealing with serial correlation and heteroskedasticity in the errors. Phillips-Perron tests are more robust to general forms of heteroskedasticity in the error term. The ADF tests cannot differentiate between unit root and near unit root process; i.e., the power of the tests is low when the process is stationary and the root is close to the non-stationary boundary. ADF and PP tests check for only unit root, and rejection of unit root null hypothesis would not mean the data are stationary. Hence in addition to the unit root tests Kwiatkowski et al (1992) (KPSS) stationarity test is employed for testing stationarity. KPSS tests the null hypothesis that a time series is stationary versus an alternative hypothesis that the series is a unit root process. The results of the tests are presented in Table 3.

**Table 3: Unit Root Tests on Iviz Levels Series**

Test	Null Hypothesis	Alternate Hypothesis	Test Statistic	Decision
ADF	Unit root process	Stationary process	-2.7707	Reject H0 at 10%
PP	Unit root process	Stationary process	-58.00	H0 is rejected at 5%
KPSS	Mean stationary	Unit root process	0.3635	Accept H0 at 5%

From the test results it may be inferred that Iviz series is stationary, and hence it can be concluded that Iviz exhibits mean reversion. Next the study attempts to compute the mean reversion rate that governs the time taken for the drift to pull the process back to the long-term average. To estimate the mean reversion rate and mean reversion level the following reduced form model is estimated:

$$Iviz_t = \lambda_0 + \lambda_1 \cdot Iviz_{t-1} + \varepsilon_t$$

The above model is an AR(1) model with drift, the unconditional mean is given by the drift and the persistence coefficient as  $\frac{\lambda_0}{1-\lambda_1}$ . It may be inferred that the past innovation term  $\varepsilon_{t-1}$  enters today's volatility ( $Iviz_t$ ) at the rate of  $\lambda_1$  and the next day's volatility at the rate of  $\lambda_1^2$  so on so forth. The characteristic time to mean revert is given by  $\frac{1}{1-\lambda_1}$ . The above model is fitted for the unannualised Iviz series, and the results are presented in Table 4.

**Table 4: Estimation of Mean Reversion Rate**

	Coefficient	Std. error	t-ratio	P-value
Const	0.00088	0.000351	2.5	0.0126
Iviz <sub>t-1</sub>	0.9543	0.0130	73.3	0.0000
Adj R <sup>2</sup> = 0.8434				

From the above results the rate of mean reversion is computed as 21.88 days or around 22 days, which means that the process takes almost one month for half the mean reversion effect to dissipate following a market shock. The mean reversion level is 36.79%. The mean reversion level is close to the unconditional mean of the Iviz at 37.36% (Table 1).

**Stylised fact 3:** Volatility is negatively related to stock returns. It is observed that volatility is negatively correlated to asset price movements and there is an asymmetric response to favourable and unfavourable news. In particular the increase in volatility following the arrival of bad news is more than the decrease in volatility upon receiving good news. Two competing theories emerged to explain this negative relationship. Black (1976) shows that as the equity prices drop there will be an increase in financial leverage causing the volatility of equity to increase; this is generally known as the leverage effect. Christie (1982) and Schwert (1989) further proved it by documenting an

increasing relationship between volatility and financial leverage. The alternate explanation is termed as volatility feedback effect. In the presence of volatility persistence, a positive shock to volatility will have an immediate impact in return to compensate for the additional risk. This translates into a fall in current equity prices. Bekaert and Wu (2000), Wu (2001), Kim et al. (2004), and Mayfield (2004) all find evidence in support of this hypothesis. The relationship between  $lvix$  and stock market returns is examined by running the following regression:

$$R_{lvix_t} = \alpha_0 + \alpha_1 R_{niftyN_t} + \alpha_2 R_{niftyP_t} + \varepsilon_t$$

where  $lvix_t$  measures the daily returns on  $lvix$  series.  $R_{nifty_t}$  measures the daily returns on Nifty series:  $R_{niftyN_t} = R_{nifty_t}$  if the market goes down ( $R_{nifty_t} < 0$ ) else it is zero;  $R_{niftyP_t} = R_{nifty_t}$  conditional on market going up ( $R_{nifty_t} > 0$ ) otherwise it assumes a value of zero. If the observed relationship is to hold, the constant term should not be statistically significant, and the coefficients  $\alpha_1$  and  $\alpha_2$  should be statistically significant, their expected sign is negative. For the asymmetric relationship to hold it is expected that  $\alpha_1 > \alpha_2$ .

**Table 5: Relationship Between  $lvix$  and Nifty Returns**

	Coefficient	Std. error	t-ratio	P-value
Const	0.0090	0.01	1.6010	0.1099
RniftyN	1.1610	0.47	2.4490	0.0146
RniftyP	0.2105	0.26	0.8140	0.4160
Adj R <sup>2</sup> = 0.03247		F = 5.41; P-value = 0.0047		

The regression results indicate that the constant term is not significant; volatility and stock market returns are negatively related to the volatility changes. Since the constant term is not statistically significant, it is an indication of the absence of deterministic growth further it can be inferred that if the market doesn't move there is no significant change in volatility. Hence, it seems volatility changes can be attributed to market movements. The relationship between Nifty returns and volatility returns are significant only in one direction; i.e., there is a significant negative correlation between  $lvix$  returns and Nifty returns in the down side but no significant relationship is observed in the upside. Hence, it can be inferred that when the markets decline  $lvix$  increases significantly while a rise in the market returns is not associated with a fall in  $lvix$ . Therefore, it can be concluded that Nifty changes and  $lvix$  changes are associated but only during market declines.

**Stylised fact 4:** Volatility is positively related to trading volumes. Apart from the stock returns-volatility, the other relationship that attracted the attention of researchers is the volume-volatility relationship. Numerous studies have documented a positive relationship between trading volume and volatility. Clark (1973), Karpoff (1987), Lamoureux and Lastrapes (1990), Brock and Lebaron (1996) and Lee and Rui (2002) inter alia have all analysed the relationship between volatility and volume. Hence, this relationship has become a stylised fact. There are two competing hypothesis to explain the relationship between volume and volatility. The first hypothesis is popularly known

as mixture of distribution hypothesis (MDH) due to Clark (1973). According to this hypothesis there is a contemporaneous relationship between volume and volatility. The second hypothesis known as sequential information arrival hypothesis (SIAH), first advanced by Copeland (1976), posits that information arrives in a sequential manner and is not received by all traders simultaneously leading to a series of intermediate equilibria before achieving the final equilibrium. Since traded volumes are considered as a proxy for information arrival past values of trading volume contains useful information about future volatility.

The relationship between *Ivix* and trading volume is examined by the following regression:

$$Ivix_t = \beta_1 + \beta_2 \tilde{v}_t + \beta_3 \tilde{v}_{t-1} + \beta_4 \tilde{v}_{t-2} + \xi_t$$

where  $Ivix_t$  is the *Ivix* on a given day  $t$ ;  $\tilde{v}_t$  is the de-trended trading volume defined as the number of shares traded on a particular day  $t$ ; to account for the non-linear relationship with past traded volumes two lags of de-trended traded volumes were also included. Since earlier studies such as Lee and Rui (2002) document non-linear trends in trading volume, instead of employing the raw volume figures the study uses the de-trended volume figures obtained as the residuals of the following regression where  $t$  is a time trend and  $v_t$  is the raw volume:  $v_t = \gamma_1 + \gamma_2 t + \gamma_3 t^2 + \tilde{v}_t$

**Table 6: Relationship Between *Ivix* and Trading Volume**

	Coefficient	Std. error	t-ratio	P-value
Constant	37.3831	1.0264	36.42	0.0000
$\tilde{v}_t$	0.1309	0.0555	2.36	0.0188
$\tilde{v}_{t-1}$	0.0897	0.0524	1.71	0.0875
$\tilde{v}_{t-2}$	0.2590	0.0601	4.31	0.0000
Adj $R^2 = 0.083646$ $F = 18.2216$ ; $P\text{-value} = 0.000$ Breusch-Pagan test = 3.8067; $P\text{-value} = 0.2831$ Hannan-Quinn = 4.6259				

The regression results confirm the positive association between *Ivix* and traded volume. Hence, it can be concluded that *Ivix* echoes volume-volatility empirical regularity too.

### 5. Conclusions and Implications of the Study

India is one of the fastest emerging markets; it has a volatility index calculated and disseminated by an organised exchange, NSE. This volatility index christened as India Vix was launched in April 2008. This study examines the behaviour of the volatility index since inception and empirically tests whether the index reflects the stylised facts of stock market volatility. The study finds that *Ivix* reflects the stylised facts such as volatility clustering, mean reversion and positive association with trading volumes. However, the market and *Ivix* returns are significantly negatively related only in one direction specifically during market descends but not when the market moves up.

The study has implications for the regulators and investment fraternity. The study shows that the

volatility index Ix mirrors the empirical regularities normally exhibited by stock returns volatility. Hence, introducing trading products with Ix as underlying may be contemplated. At present volatility trading is possible in India; as there is an active and liquid market in options trading, launching derivatives based on volatility index will pave way for trading pure volatility in an economical and a convenient way. Volatility trading strategies such as straddles need to be adjusted frequently as prices move else they become directional bets. The study shows a negative relationship between Ix and Nifty returns which will be quite beneficial to investors, as including Ix may lead to diversification benefits to investors. More importantly the significant negative relationship indicates volatility products will act as catastrophic hedging tools. In other words, inclusion of volatility index in a portfolio will provide the much needed insurance, particularly in market crashes. This is because volatility peaks during market falls and hence spot market losses could be offset by gains on the volatility front. Even though exchange traded derivatives are not currently available in India at least institutional investors can use the volatility index as the underlying and trade in OTC products such as volatility/variance swaps. To conclude, the study shows that India's volatility index reflects most of the stylised facts of volatility and hence it seems to be serving the purpose. Further studies may examine the predictive power of volatility index and examine the co-movements of Ix with other global volatility indices.

### Notes

1. The computation methodology in detail is provided in "About Volatility Index," National Stock Exchange of India Limited. Available at [http://www.nse-india.com/content/vix/India\\_VIX\\_comp\\_meth.pdf](http://www.nse-india.com/content/vix/India_VIX_comp_meth.pdf).
2. Cont (2001) defines a stylised fact as "a set of properties, common across many instruments, markets and time periods, has been observed by independent studies and classified".
3. For an accessible treatment of the unit root tests see Enders (2003).

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# Underpricing of Initial Public Offerings in India: A Comparison of the Book-Building and Fixed-Price Offerings

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## Abstract

This study attempts to provide new evidence on the first-day IPO market performance using a set of 235 IPOs newly listed between 1 April 1997 and 31 March 2008 on Indian stock exchanges. The study examines how a change in the institutional arrangements that govern the pricing of IPOs, from the traditional fixed price approach to the building of a book, affects the level of underpricing. It also extends the literature on underpricing by comparing underpricing under the two pricing methods.

The study adds new evidence to the existing literature on IPOs in a significant manner. Firstly, in consistence with the 'hot issue markets' theory (Ibbotson and Jaffe, 1975; Ritter, 1984), it highlights that on the main board of the Indian Exchange, IPO underpricing increased in 2007. The empirical findings indicate a significant mean positive underpricing (14.45 %); nonetheless, 60% of IPOs in the sample are initially overpriced. Secondly, in contrast with Giudici and Paleari (1999), the study finds no evidence that there is difference in underpricing between fixed price and book built offers.

**Keywords:** India, Underpricing, Price Support, Initial Public Offering, Indian Stock Exchange, Book Building, Fixed Price Offering

## 1. Introduction

The performance of book building vis-a-vis fixed-price Initial Public Offerings (IPOs) is a well-researched area. Both offering methods lead to underpricing. Underpricing of IPOs, as referred to in the literature, is one of the anomalies observed in the primary markets all over the world.<sup>1</sup> The term refers to the positive initial returns over the offer to listing dates of the new issues. Although the evidence on IPOs' long-run underperformance is mixed, the most striking and widely diffused empirical regularity is the initial underpricing, i.e. the positive first-day returns. It appears that the prime factor causing IPO underpricing is asymmetric information (Rock, 1986; Ritter and Welch, 2002). There are other explanations such as conflict of interest and agency problems (Ljungqvist and Wilhelm, 2003; Loughran and Ritter, 2003) and the signalling role (Allen and Faulhaber, 1989). Many of these explanations are likely to be true for emerging economies as well, routed as they are in theory; there could be institutional features that might impinge on both the causes and the extent of underpricing in these countries. Hence, it would be interesting to study an emerging economy like India where a large number of companies went public to finance their expansion in the presence of perverse underpricing.

Moreover, international evidence suggests that book-building issues expect to have lower underpricing than fixed-price issues. In Indian IPO markets, book-building mechanism since 1999 has gained popularity particularly for relatively larger IPOs. Traditionally, Indian IPOs used to be fixed-price offerings, wherein prices of the stocks on offer were determined prior to seeking investors' bids.

While book building has become increasingly popular especially for large issues, smaller issues by relatively small firms continue to be offered on fixed-price basis. Indian IPO markets thus provide a natural setting to understand whether there are any systematic differences in under-pricing and long-run performance of the IPOs following fixed-price as opposed to book-building method.

It is thus very important to examine price performance of Indian IPOs at the time of listing for various reasons. First, the changes in the pricing regulations along with the boom and slump (hot and cold phases) in the IPO market over the past decade have made India a very important and interesting destination for such studies. The Indian institutional arrangements, in common with those in other markets, have evolved with a movement away from the traditional method of offering shares at a pre-determined fixed price, towards a book-building method. Fixed-price mechanism was used to price IPOs until 1999<sup>2</sup>. The fixed-price mechanism coupled with widespread underpricing led to a situation where investors resorted to manipulations to increase the odds of getting the shares allocated. In 1999, the Securities and Exchange Board of India (SEBI) introduced a book-building process similar to the United States, with pricing flexibility coupled with discretion in allocation<sup>3</sup>. Post 1999, issuers could opt either conventional fixed-price mechanism or the book-building mechanism for pricing IPOs. Consequently, some public issues managed during the initial period could be overpriced. This situation provides a unique opportunity to observe both mechanisms working in similar market conditions. An expanding literature examines this transition and its implications for underpricing<sup>4</sup>. Thus, 1999 represents a natural structural breakpoint in the availability of different issuance mechanisms in the Indian IPO market. Examining IPOs from 1998 in India allows understanding the critical differences with the previous studies due to changes in regulation as well as the evolution of the IPO market. It also facilitates to test the implications of introducing book building to the IPO markets.

Second, the study of Indian IPOs should be of interest to the global financial community, as over the time period India has become a favorite destination for FIIs. Finally, the Indian primary markets have witnessed a boom during the last few years. Both the number of new issues coming to the market and the total amount raised have increased in leaps and bounds. Empirical findings indicate that book building has rapidly gained favour as the issue mechanism in India since its inception in 1999. For instance, over 72% of the IPOs brought to the market in 2005 were book built. This trend continued in the later part of the years as well.

This study attempts to provide new evidence on the first-day IPO market performance using a set of 235 IPOs newly listed between 1 April 1997 and 31 March 2008 on the Indian exchange. It also extends the literature on underpricing by comparing underpricing under the two pricing methods. Specifically, the study investigates how a change in the method by which price is determined affects the level of underpricing.

Empirical findings indicate that the initial underpricing is significantly positive, and substantial money is 'left on the table' by issuers. A strong reduction in the mean underpricing practices, especially in 2008, is documented. This contrasts with the findings by Loughran and Ritter (2003) and Ljungqvist and Wilhelm (2003), documenting a rising severity of IPO underpricing in the US stock market. Separate analysis of IPOs with book building (which are less underpriced than fixed-price IPOs) is provided. In contrast with Giudici and Paleari (1999), the study finds no difference in underpricing between fixed-price and book-building offers.

The remainder of the paper is organised into five sections. Section II highlights the recent literature about IPOs underpricing. Section III gives a short description of the institutional details of the Indian IPO process. Section IV provides the empirical evidence regarding the initial price performance of Indian IPOs. Section V provides the summary and concluding remarks.

## 2. Literature Review

The underpricing of IPOs is a universal phenomenon well documented in the economic literature (Ibbotson, 1975). Underpricing is ubiquitous but the amount of underpricing varies across countries. Loughran, Ritter and Rydqvist (1994) provide data on the initial listing performance of IPOs made in 25 countries. They show that the initial listing return ranges from 4.2% in France to 80.3% in Malaysia. Researchers provided explanations for this widely diffused 'anomaly' of the financial markets. The identified possible reasons developed in the finance literature to explain the underpricing are: information asymmetry among participants, agency problems and institutional setting when the firm goes public.

It appears that the prime factor causing IPO underpricing is asymmetric information between the issuer and the investment banker, asymmetric information among investors and asymmetric information between issuer and investment banker. Rock (1986) assumes asymmetric information between investors. He classifies investors into two types: informed and uninformed, based on their knowledge of the future market price of the offered shares. Informed investors are knowledgeable about the future prospects of the shares being sold and will only attempt to buy when the issue is underpriced. Uninformed investors, on the other hand, do not know which issues are underpriced or overpriced, and therefore do not discriminate between issues when they apply for IPOs. Therefore, they face a "winner's curse" due to the adverse selection externalities. Due to this adverse selection problem, the uninformed investors will exit the market unless they find issues of underpriced IPOs are available on average to recompense them for their informational handicap (at least to a risk-free rate). An implication of the winner's curse theory is that riskier issues should be underpriced more in order to make them attractive to a larger group of investors. Beatty and Ritter (1986) extend this and show that the expected underpricing is an increasing function of the uncertainty about the market-clearing price of an IPO. They defined 'ex-ante uncertainty' as a proxy of information asymmetry, which in turn is related to some variables, such as the firm's age, size and assets typology, as well as the file price-range spread. A number of authors have tested this proposition and they are in general agreement with it (see, for example, Cheung and Krinsky, 1994 and Miller and Reilly, 1987).

Many researchers are of the view that information asymmetry exists between the offering parties and the investors about the price and the level of the stock demand. Benveniste and Spindt (1989) introduce the "information gathering theory" and state that the underpricing is a means to induce informed investors to reveal private information about the demand for shares in the pre-selling phase, thus allowing better evaluation of offerings by the intermediaries. Chemmanur (1993), Jegadeesh et al. (1993) and Spiess and Pettway (1997) show that the underpricing may also generate useful information for the firm in order to plan future seasoned offerings ("market feedback hypothesis"). Allen and Faulhaber (1989), Grinblatt and Hwang (1989) and Welch (1989) instead identify the firm's managers as the informed party and interpret the underpricing as a "signal" of a firm's superior quality

(signalling hypothesis). A key assumption is that high-value firms with favourable prospects tend to underprice more than low-value firms.

Baron and Holmstrom (1980) and Baron (1982) postulate information asymmetry between the issuer and the investment banker (principal agent model). They assume that an investment banker is better informed about the capital market than the issuer and is therefore better able to gauge demand for the offer and set the price<sup>5</sup>. He is thus encouraged to sell underpriced shares<sup>6</sup>. A similar story is modelled by Mandelker and Raviv (1977), stating that the underpricing is related to intermediaries' risk aversion. Tinic (1988), Hughes and Thakor (1992) and Drake and Vetsuypens (1993) hypothesise that risk aversion also derives from the willingness of the intermediary to avoid litigation.

Introducing agency and moral hazard consideration, Ibbotson (1975) states the desire to leave a "good taste in investor's mouths" as a potential explanation of underpricing by intermediaries<sup>7</sup>. Fulghieri and Spiegel (1991) hypothesise that intermediaries also want to gain the goodwill of strategic clients, assigning them underpriced shares. More easily, Baron and Holmström (1980) highlight that marketing expenses have a decreasing marginal return and it is less costly to convince investors to subscribe underpriced IPOs. Ritter (1984) claims that investors prefer underpricing because they expect that after the IPO the controlling shareholders may extract private benefits from the firm. Su and Fleisher (1999) admit that also bribery and corruption can explain high underpricing in IPOs.

Nevertheless, other works relate the underpricing to irrational behaviours due to speculation bubbles and market "fads" (see Aggarwal and Rivoli, 1990), to noisy trading activities (Chen et al., 1999), to naïve investors' over optimism (Rajan and Servaes, 1997; Bossaerts and Hillion, 1999). Mauer and Senbet (1992) propose an explanation based on stock pricing in segmented markets; in particular, they assert that in these markets problems of incomplete access and incomplete spanning do exist, causing a remarkably high risk for investors. Welch (1992), in his model of informational cascades, holds that an issuer underprices the issue in order to persuade the first few potential investors to purchase and spawns a cascade in which other investors follow suit despite their earlier lack of enthusiasm in subscribing to the issue.

In the Indian context, Shah (1995) conducted the earliest study on underpricing. Using a large sample of 2056 IPOs for 1991-1995, he showed an average underpricing of 105.6% in India's primary market. Narasimhan and Ramana (1995). after analysing the performance of 103 IPOs, and Baral and Obaidullah (1998) with 433 IPOs analysis conjectured that Indian markets were seeing 'overpricing and artificial support', although they also found initial returns to be higher. All these studies have discussed the short-term performance of Indian IPOs. Madhusoodanan and Thiripalraju (1997), after analysing the long-run performance (up to 3 years) of 1922 IPOs from 1992 to 1995 concluded that Indian IPOs were subject to wide-scale underpricing with investors resorting to manipulations to increase the odds of getting the shares allocated. Table 1 compares the level of underpricing reported by the earlier studies exhibiting that the initial excess return on IPOs in the Indian primary capital market has been very high.

However, in recent times the book-building method has increased in popularity with over 70% of IPOs from 2002 choosing that method<sup>8</sup>. The transition from IPOs using fixed-price offers to the majority using book-building illustrates how quickly the market adopts a procedure that appears

to offer greater efficiency. Moreover, the debate is going on in the academic fraternity about optimal selling procedures in IPOs (fixed-price offer vs. book building vs. auction-like). Analysis of Indian IPOs is required as it provides the opportunity to evaluate the shift in issue procedures. In India until 1998 almost all IPOs were fixed-price offerings, while book building has become popular in 1999. Thus, there is an opportunity to test how a change in the institutional arrangements that govern the pricing of IPOs, from the traditional fixed-price approach to the building of a book, affects the level of underpricing.

**Table 1: Phenomenon of Underpricing : Indian Scene**

<b>Studies</b>	<b>Period</b>	<b>Sample Size</b>	<b>Performance (%)</b>
Ajay Shah (1995)	1991-95	2056	105.6
Narasimhan & Ramana (1995)	1993-94	103	92.16
Baral & Obaidullah(1998)	1994-95	433	153.173
Madhusoodon & Thiripalraju (1997)	1992-95	1922	85.75

There have been conflicting international evidences on the comparison between book building and fixed-price offerings. Ljungqvist, Jenkinson, and Wilhelm (2003) find that book-built issues do not necessarily lower underpricing in all countries. However, underpricing is lower for book-built IPOs when issuers use U.S. lead managers and when the issues are marketed in the United States. Interestingly, as the authors carefully note in the paper, their sample excludes data from some large domestic IPO markets, including India. However, the study of French IPOs by Derrien and Womack (2002) has found both book building and fixed price approaches to be inefficient. While Spatt and Srivastava (1991) create a framework by which the fixed-price allocation coupled with information exchange between the issuer and bidders can lead to optimal collection for the issuer, Benveniste and Busaba (1997) have put forth a model by which book building generates higher proceeds but induces higher uncertainty.

The present study differs with regard to above theories on several dimensions. Firstly, the Indian book-building mechanism requires retail and institutional investors bid on independent pools of shares. Auctions are nonexistent in the Indian market. This leads to an altogether different set of theoretical issues compared to the setting in which all investors bid for the same pool of shares. The present analysis focuses on the effect of introducing book building as a mechanism in the IPO market formerly dominated by fixed-price offerings. Secondly, the focus is on the time period when book building was introduced to the marketplace in contrast to the markets that Cornelli and Goldreich study, where book building has historically been available. Lastly, the present study is studying a different set of issues. Prior studies of IPO analysed variation within book-built IPOs, which sheds light on micro-level bidding by individual investors. On the other hand, this study examines the differences between mechanisms. The present study will verify if in India book building is useful to reduce underpricing.

### 3. Public Issue Process in India

This section briefly outlines the current regulations and procedures involved in the new issue process in India. Prior to May 1992, the government of India controlled the pricing of equity issues. A government-appointed official, the Controller of Capital Issues (CCI), priced the issue of equity capital using a pre-determined formula. Since then the government has abolished price controls. After May 1992, companies are free to price the equity issues. Currently, the Securities Exchange Board of India (SEBI) regulates the new issue process<sup>9</sup>. All companies planning to make equity offerings to the public submit an offer document for approval by SEBI. Companies are also required to state the price at which the public offering is to be made. The offer document should provide an adequate justification of the offer price.

An investment banker, who is the lead manager, manages such public issues<sup>10</sup>. He can enlist the support of other investment bankers. He is responsible for all the key decisions and the administration of the issue process and is required to adhere to the disclosure norms prescribed by SEBI. Since 1995, SEBI has allowed companies/lead managers to indicate a price band within which the final offer price must lie. The maximum price should not be more than 120% of the minimum price. SEBI is also concerned with adequate information disclosure to potential investors and ensuring that companies and their merchant bankers do not follow discriminatory policies that harm the interests of investors. Investment bankers cannot discriminate between the different investors while allocating shares in the public issue process. In the case of oversubscription, the allotment is finalised in consultation with the stock exchange and a SEBI-nominated public representative. However, companies can retain a certain amount out of the public issue for a particular class of investors. The usual classes of investors include the resident Indian public, non-resident Indians (NRI), foreign institutional investors (FII), mutual funds, and employees of the company<sup>11</sup>.

With the introduction of the book-building process and the scrapping of the concept of par value for shares, the pricing process has become more open<sup>12</sup>. It is now possible to follow the fixed-price route or the book-building route for an issue. In case of the book-building process, the price is not fixed, but a price band is suggested. The investors can bid for any price between the cap and the floor and the quantum of subscription. One of the lead managers will work as the book runner. The final issue price is determined as the cut-off at which the issue is fully subscribed. The book building could be used for 75% of the issue, which could be subscribed by institutions and high net worth individuals, and the balance 25% could be issued to individual investors as a fixed-price issue, the price being the cut-off determined via book building. It is also possible to have 100% book-built issues where the individual investors also take part in the book-building process. The book-building process is completely automated (on-line) using the systems of the stock exchanges, and this process is known as e-IPO. This has been made possible by the compulsory dematerialisation of stocks in case of secondary market transactions.

## 4. Empirical Analysis

### 4.1 Sample

An initial sample of IPOs on the Bombay Stock Exchange (BSE) during the period 1 April 1997 to 31 March 2008 is identified from the Prowess database, provided by the Centre for Monitoring the Indian Economy (CMIE). To ensure valid estimates of the measures, an IPO is included only when it meets the following additional criteria:

- (a) The IPO shares are ordinary common shares.
- (b) The IPO firms must have relevant financial information and daily adjusted closing stock price data on listing day available from the Prowess database or BSE web site.

Table 2 reports the classification of the data based on sector and year of IPO.

**Table 2: Sample distribution of IPOs by firms's sector**

Year	Financial Sector	% of Sample	Industrial Sector	% of Sample	Services Sector	% of Sample	Total	% of Sample
1998	1	4.00	0	0.00	0	0.00	1	0.43
1999	1	4.00	0	0.00	1	1.52	2	0.85
2000	2	8.00	2	1.39	7	10.61	11	4.68
2001	1	4.00	2	1.39	0	0.00	3	1.28
2002	1	4.00	0	0.00	1	1.52	2	0.85
2003	0	0.00	1	0.69	1	1.52	2	0.85
2004	2	8.00	12	8.33	7	10.61	21	8.94
2005	5	20.00	27	18.75	15	22.73	47	20.00
2006	4	16.00	28	19.44	16	24.24	48	20.43
2007	7	28.00	67	46.53	17	25.76	91	38.72
2008	1	4.00	5	3.47	1	1.52	7	2.98
Total	25	100.00	144	100.00	66	100.00	235	100.00

In 2005-2007, there was a high level of IPO activity, about 79.15 % of the whole sample. Therefore, there is evidence that the IPOs are clustered in time. Although there is some clustering by year, all IPO announcements occur on different days. The table also reports that the largest number of IPOs occurred during 2007 when the Indian stock market was passing from the boon phase. Firms executing IPOs represent a broad cross-section of industries, indicating that IPOs are not specific to small set of industries. Considering the business sector subdivision of the sample, the maximum number of IPOs has been in industrial sector (144) followed by services (66) and then financial sector (25). Among the IPOs of the survey, 38 offerings are privatisation operations and, in 14 cases, the issuing firm belongs to a business group the holding company of which is already listed (equity carve-outs). With reference to privatisation, banks, insurance companies and public

utilities formed the majority of IPOs. Equity carve-out IPOs involve almost all the largest business groups listed on the stock market in the period under consideration.

Table 3 presents the annual distribution for the sample of 235 IPOs by method of listing.

**Table 3: Sample distribution of IPOs by method of listing**

Year	Financial Sector			Industrial Sector			Service Sector			Total			% of Sample
	BB	FP	Total	BB	FP	Total	BB	FP	Total	BB	FP	Total	
1998	1	0	1	0	0	0	0	0	0	1	0	1	0.43
1999	1	0	1	0	0	0	1	0	1	2	0	2	0.85
2000	0	2	2	2	0	2	2	5	7	4	7	11	4.68
2001	1	0	1	0	2	2	0	0	0	1	2	3	1.28
2002	1	0	1	0	0	0	1	0	1	2	0	2	0.85
2003	0	0	0	1	0	1	1	0	1	2	0	2	0.85
2004	1	1	2	7	5	12	6	1	7	14	7	21	8.94
2005	5	0	5	17	10	27	12	3	15	34	13	47	20.00
2006	2	2	4	23	5	28	15	1	16	40	8	48	20.43
2007	7	0	7	58	9	67	16	1	17	81	10	91	38.72
2008	1	0	1	4	1	5	1	0	1	6	1	7	2.98
Total	20	5	25	112	32	144	55	11	66	187	48	235	100

Notes: This table reports are the numbers of IPOs in the sample overall by year and by method of listing during 1998-2008. BB refers to book built IPOs and FP refers to fixed price offering. Sample IPO firms were identified which had daily stock price information available from the Prowess database & BSE web site.

Of the 235 IPOs in the sample, 48 are fixed-price offerings and 187 are book-building offerings. There is a noticeably higher number of IPOs during 2004 to 2007 compared to other years and a visible increase in the number of IPOs using the book-building pricing method relative to the number of IPOs using the fixed-price method towards the latter end of the sample period. Of the total sample, 187 firms preferred this mode over fixed-price mechanism. The book-building method provides the lead banker more flexibility to set the offer price. The final offer price incorporates the feedback received during the subscription period. One thus expects the underpricing to be less in case of book-built issues.

#### 4.2 Descriptive statistics

In order to test the correlation between the underpricing and some explicative variables pointed out by the literature, Table 4 presents descriptive statistics of the sample. Financial companies figure separately from others as they have different accounting standards. Table also reports about the offering, the market momentum prior to the IPO and the aftermarket price volatility.



**Table 4: Descriptive statistics of the sample**

Details		Mean	Median	Min Value	Max Value	Sample Size
Company size (whole sample)	Company's Assets (Rs Cr)	3225.608	171.5	3.7	126268.71	235
	Equity Capital (Rs Cr)	139.074	14.06	0.05	7812.5	235
Company size (bank and insurance companies)	Company's Assets (Rs Cr)	17904.033	671.9	3.7	126268.71	25
	Equity Capital (Rs Cr)	239.062	200	4.49	1147.77	25
	Income from investments(Rs Cr)	1386.265	244.955	0.1	6647.87	25
Company size (other companies)	Company's Assets (Rs Cr)	1478.176	166.765	8.68	65958.1	210
	Equity Capital (Rs Cr)	127.17	13.065	0.05	7812.5	210
	Gross Sales (Rs Cr)	440.847	144.185	2.56	21289.4	200
Company age	Whole Sample (years)	16.9	13	1	137	235
	Bank/Insurance (years)	39.4	15	2	137	25
	Other companies (years)	14.3	12.5	1	68	210
IPO proceeds (Rs Cr)		314.64	81	0.0002	9187.5	235
Fraction of the equity capital held by controlling shareholders (%)		58.22	58.82	0	89.96	235
Oversubscription level: ratio between	Total Demand and Supply	24.17	12	1	176	235
Days between offering and listing		28.2	26	18	86	235
Daily price volatility (%)	(10 days after the listing)	13.2	7.13	0.21	152.72	235
Market performance (%)	(100 days before the IPO)	5.55	6.65	-8.43	17.28	235
Daily market index volatility (%)	(60 days before the IPO)	0.6	0.55	0.31	1.24	235

Notes: The company size is measured by the accounting value of the assets at the listing. For financial companies, i.e. banks and insurance companies, the data about the income from capital investments are reported respectively. The company age at the listing is reported as well. Information about the IPO are listed (total proceeds, oversubscription level, days between the IPO and the listing). Statistics about the market index performance and volatility before the IPO and the IPO share volatility after the IPO are also reported.

Empirical findings indicate that a strong scattering of the firms' size and IPO proceeds exists, revealed by the difference between the mean and median values. The mean company age is 17 years that is almost comparable to US IPOs but considerably lower than European samples<sup>13</sup>. The mean company asset size (excluding bank and financial firms) is Rs. 1478 crores. The fraction of equity capital held by the controlling shareholder after the IPO is on average 58.22%, not noticeably different from other markets<sup>14</sup>. These findings indicate that controlling shareholders in most of the cases retain the majority of the voting capital after the IPO. Oversubscription levels, as measured by ratio

between demand and supply, are significantly high. The mean value is 24 whereas the maximum value is as high as 176. On average, the sample firms offer their shares after a period (28 days) characterised by a mean positive performance by the market index. This lag has been reducing with time.

### 4.3 Underpricing and 'money left on the table'

For each sample IPO, two measures of underpricing were calculated. First, the 'simple' underpricing, defined as the difference in percentage between the official price of the share after the first day of listing and the offer price; and second, the 'adjusted' underpricing, defined as the difference between the 'simple' underpricing above and the market index return measured between the beginning of the public offering and the day of the first trading. In this analysis, the market index is historical SENSEX<sup>15</sup>. Table 5 summarises the results obtained by calculating the 'simple' and 'adjusted' mean underpricing over time. The mean value and the number of firms exhibiting a positive (negative) underpricing are also reported. Table also reports the t-tests in order to determine the statistical significance of the underpricing.

**Table 5: IPOs mean underpricing (first day return), by listing year**

Year	IPOs	Underpricing (%)				Adjusted underpricing (%)				Days
		Mean		Positive	Nega- tive	Mean		Positive	Nega- tive	
1998	1	-74.045		0	1	-66.589		0	1	86.0
1999	2	-52.969		0	2	-58.296		0	2	47.5
2000	11	-27.534	***	4	7	-28.302	***	5	6	46.2
2001	3	-75.697	**	0	3	-62.428	**	0	3	35.7
2002	2	-76.992	**	0	2	-78.493	**	0	2	30.0
2003	2		8.037	1	1	6.160		1	1	26.0
2004	21	28.166	**	14	7	27.034	***	15	6	29.1
2005	47	20.322	**	35	12	15.870	***	32	15	26.8
2006	48	15.638	**	28	20	12.920	***	24	24	26.0
2007	91	22.043	*	55	36	21.888	*	58	33	26.6
2008	7	5.559		4	3	8.487		6	1	24.3
Total	235	14.455	*	141	94	13.039	*	141	94	28.2

Notes: The underpricing is adjusted by considering the market index return between the issue of the offer price and the listing. Days between the first day of the offering and the trading is reported.

Empirical findings indicate that the underpricing phenomenon is common in IPOs in Indian case. The mean 'simple' underpricing, relative to the whole sample of 235 firms, is equal to 14.45% and 13.04% if one considers the 'adjusted' return. The sample mean values are statistically different from zero with a remarkably high significance (99%); nevertheless, they do not appear to be homogeneously distributed over time. The adjusted return value is lower than the simple mean,

as it discounts the effect of positive performance by market index between offer date and listing date. When underpricing is adjusted for market movements, the minimum underpricing increases to 78.49% and maximum decreases to 27.03%.

On an average from 1998 to 2002, Indian IPOs were overpriced. This is because book-building mechanism was evolving by that time and free-price mechanism as propounded by Securities Exchange Board of India (SEBI) was not delivering desired results. For 2003, the results are not statistically significant because of the small number of firms going public. The mean values for this period indicate overpricing, but due to small sample size, these cannot be statistically tested. Evidence for underpricing for years 2004 to 2006 is less significant than the results for 2007. In 2007, IPOs were significantly underpriced: given that during that period the market momentum was favourable, this is consistent with the 'hot issue markets' theory (Ibbotson and Jaffe, 1975; Ritter, 1984). The analysis of the most recent IPOs in 2008 seems to reveal a strong reduction in the underpricing, with mean values of about 5.56%. This can be attributed to recent weak market sentiments.

Researchers have underlined that underpricing is not the entrepreneur's primary concern, although it may represent an opportunity cost (Habib and Ljungqvist, 2001). They must minimise the reduction in underpricing-induced wealth losses (money left on the table), which increase in the underpricing but also in the number of shares sold in the IPO. Ritter (1984) defined this as the offer price to closing market price on the first day of trading, multiplied by the number of shares offered. However, Loughran and Ritter (2002) noticed that issuers rarely get upset about 'money left on the table'. Introducing a 'prospect theory' of issuers' behaviour, they argue that IPOs where wealth losses are large are almost invariably those where the offer price and market price are higher than had originally been expected. Thus, controlling issuers are generally simultaneously discovering they are wealthier than they expected to be, and underpricing may be considered an indirect form of investment banker's compensation. On the other hand, Daniel (2002) argues that it might not explain all the underpricing in IPOs. Hence, it is worth analysing both underpricing and wealth losses. Table 6 computes the amount of 'money left on the table'. As there has been significant inflation during the sample period, all the statistics also considers inflation ratios as published in International Finance Statistics Yearbook of IMF.

The mean amount of 'money left on the table' is equal to Rs. 11.33 crores (Rs. 12.84 crores inflation adjusted). Empirical findings are similar as reported in Table 4. In years 1998-2002, the mean value is negative, indicating overpricing of the issues. The highest mean 'money left on the table' is observed in 2007. In contrast, in 2008, total and mean amounts of 'money left on the table' are quite low.

In order to test the effects of different placing strategies on the underpricing level, two subsamples were identified. In particular, the first sample includes 48 fixed-price samples and the second 187 IPOs in which the final offer price is determined after book building (in the prospectus a price range is filed). From the analysis of the literature, one expects underpricing to be lower in IPOs with book building, coherently with the "information gathering theory" by Benveniste and Spindt (1989). Table 7 displays the underpricing levels, by offering strategy currently applicable in India.

**Table 6: 'Money left on the table', by listing year**

Year	Sample Size	Money left on the table			
		Total (Rs Cr)	Total (Inflation adjusted) (Rs Cr)	Mean (Rs Cr)	Mean (Inflation adjusted) (Rs Cr)
1998	1	-29.28	-30.65	-29.28	-30.65
1999	2	-225.74	-234.77	-112.87	-117.38
2000	11	-311.08	-322.56	-28.28	-29.32
2001	3	-76.89	-80.26	-25.63	-26.75
2002	2	-77.08	-80.02	-38.54	-40.01
2003	2	73.05	75.8	36.53	37.9
2004	21	183.11	190.89	8.72	9.09
2005	46	298.21	315.51	6.34	6.71
2006	47	3176.6	3378.95	66.18	70.39
2007	91	9505.6	9933.35	104.46	109.16
2008	7	165.95	165.95	23.71	23.71
Total	233	12682.46	13312.19	11.33	12.84

Notes: Sample includes 235 IPOs on the Bombay Stock Exchange between 1998 and 2008. 'Money left on the table' is defined by the product between the number of offered shares and the first-day monetary return. Inflation adjusted amounts are also reported.

Empirical findings indicate that the difference is not statistically significant at 1% confidence interval. This implies that underpricing in IPOs that use a book-building method is no different from underpricing in IPOs that use a fixed-price method. This result contrasts with that of Giudici and Paleari (1999) who document a statistically significant decrease in underpricing of IPOs using the book-building pricing method compared with IPOs using the fixed-price method on the Italian Stock Exchange. They attribute the reduction in underpricing to reduced information asymmetry brought about through the information gathering activities of the investment banker.

The possible explanation for there being no difference in underpricing between the two pricing methods, consistent with the results in Table 7, is that IPOs that use the book-building method are consistently priced closer to the line than IPOs that use the fixed-price method. This would result in a narrower range and lower volatility of underpricing for IPOs using the book-building method compared with IPOs using the fixed-price method. This is consistent with the conjecture that the demand schedule constructed during the book-building process allows the investment banker to set the final issue price to control the level of underpricing. The mean amount of money left on the table is more in the case of book building. This is due to significant overpricing of fixed-price

issues from 1998 to 2002 as stated in previous tables. Moreover, the difference in money left on the table in the case of book building vs. fixed price is also not significant. This again implies that book building has not been able to significantly reduce underpricing in Indian capital markets.

**Table 7: The relationship among underpricing (adjusted values), 'money left on the table' and placing strategies**

	Book Building		Fixed Price
Sample size	187		48
Mean Adjusted Under pricing (%)	14.79		15.82
t-test on the difference	-0.117		
'Money Left on the Table' (Mean Inflation Adjusted) Rs. Cr	31.822		-1.468
t-test on the difference	0.471		

Notes: Sample includes 235 IPOs on the Bombay Stock Exchange between 1998 and 2008.

## 5. Conclusion

The present study analyses a comprehensive and unique data set about IPOs' short-run market performance in India. It computed the first-day return of 235 IPOs from 1998 to 2008 obtaining a mean (adjusted) underpricing equal to 14.45% (13.04%). The amount of 'money left on the table' by issuers, when they sell underpriced shares, was also computed. Empirical findings indicate that Indian market was experiencing underpricing in 2003, which increased over time and was particularly high during 'hot issue' market of 2007. However, it has decreased in the first part of 2008 (in 2008 it is on an average negative).

The present study found no evidence that underpricing in IPOs that use a book-building method are different from underpricing in IPOs that use a fixed-price method. This result is in contrast to the evidence in the study by Giudici and Paleari (1999). It may, however, still be consistent with the premise that the book-building method reduces information asymmetry between investment banker, issuer and investors, but as the results of this study show, this does not necessarily result in a lower level of underpricing.

The above empirical findings provide original contributions to existing literature, which are important from the point of view of Indian IPO market. The number of firms going public in India has recently increased, but we are much far from the standard of other developed markets; therefore, often IPOs are considered as a speculative opportunity more than an occasion to diversify portfolios. Moreover, the evolution of the placing procedure, from fixed-price offerings to book building, has not improved the efficiency of Indian IPOs market. It is a pity that in India no transparency characterises intermediaries' activism after the listing. SEBI should arrange as soon as possible a list of detailed information to be filed and published by the intermediaries when trading shares after the listing.

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## Notes

1. For example, Loughran, Ritter and Rydqvist (1994) compare short-run underpricing of IPOs for 24 countries. Kang and Stulz (1996); Cai and Wei (1997) and Hamao, Packer and Ritter (2000) study short run underpricing and long-run underperformance of Japanese issues. See also Levis (1993) for U.K. issues, Gajewski and Ginglinger (1998) for French issues, and Gebhardt and Heiden (1998) for German issues.
2. The firm going public would set a price and open the issue for subscription. Allocations were strictly on a proportionate basis.
3. Book building process is the process of securing the optimum price for the company's share based on the feedback received from the prospective investors as well as market intermediaries during a certain period. It is a common practice used in most developed countries for marketing a public offer of equity shares of a company.
4. See Benveniste and Busaba, 1997; Giudici and Paleari, 1999 and Cornelli and Goldreich, 2001.
5. Better is in the sense of being better able to price the issue near to the subsequent market price.
6. This theory is refused by Muscarella and Vetsuypens (1989), who analyze IPOs in which the intermediary sells its own shares (thus without information asymmetry) and nonetheless find significant underpricing. Camp (1992) notes that self-underwritten IPOs require a review of issue price by an independent intermediary.
7. Ibbotson and Jaffe (1975) also forward the hypothesis that investment bankers set the price lower in order to provide an incentive for potential investors.
8. For the annual distribution of IPOs see Table 3.
9. SEBI regulates both the primary and secondary markets in India and performs a role that is comparable to the Securities Exchange Commission (SEC) of USA.
10. In India, there are three major types of investment bankers, viz. merchant banking divisions or subsidiaries of banks, merchant banking divisions or subsidiaries of development banks, and non-bank financial service companies engaged in merchant banking activities. The process of competitive bidding for choosing the investment banker is not prevalent in India.
11. An NRI is a person of Indian origin regardless of his/her citizenship. Foreign individuals with the exception of NRIs are not allowed to directly participate in Indian capital markets. FII's must be registered with SEBI prior to investing in the Indian capital markets and are subjected to regulation.
12. The Book Building guidelines were first introduced by SEBI in 1995 (clarification XIII, dated 12.10.95) for optimum price discovery of corporate securities. The SEBI, from time to time modifies the guidelines in order to upgrading the existing mechanism. The SEBI in its press release dated 7th September, 1998 prescribed the fresh guidelines for book building mechanism after thorough modification and it was again modified in 2001(Circular No.2, dated 6.12.2001) and 2003(Circular No. 11, dated 14.08.2003).
13. For example, Habib and Ljunqvist (2001) report a mean age equal to 14 years in the US market. In Europe a higher comparable mean age is reported by Vandemaele (1999) for the French market (44 years), Roosenboom et al. (1999) for the Netherlands (35 years), Holmen and Hogfeldt (1999) for Sweden (31 years).

14. Cooney et al. (1999) found 67.4% in their US sample, Lee et al. (1999) 53.0% for the Australian market, Goergen (1998) 76.4% and 62.6% for the German and UK market respectively, Roosenboom et al. (1999) 64.6% for the Netherlands.
15. From 1979 onwards, India has had the "BSE Sensex".

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## Author's Profile

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## MANAGEMENT CASE

### Euthanasia: Should it be Lawful or Otherwise?

Omkar D. Palsule-Desai and N. Ravichandran

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*Causing the death of a person, who is in a permanent vegetative state with no chance of recovery, by withdrawing artificial life-support is only an 'omission (of support to life)' and not an 'act of killing'.*

*The Supreme Court of India*

On March 7, 2011, while dismissing Aruna Ramchandra Shanbaug's euthanasia petition, the Constitution bench of the Indian Supreme Court comprising Honorable Justice Markandey Katju and Honorable Justice Gyan Sudha Mishra held that "a decision to discontinue life support has to be taken either by the parents or the spouse or other close relatives, or in the absence of any of them, such a decision can be taken even by a person or a body of persons acting as a next friend. It can also be taken by the doctors attending the patient. However, the decision should be taken bona fide in the best interest of the patient<sup>1</sup>". Additionally, in view of the absence of any laws governing petitions seeking mercy killing, the Supreme Court highlighted the existing powers extended by Article 226 of the Indian Constitution to High Courts, and provided a detailed procedure that each High Court was required to adopt when such an application was filed until Parliament made legislation on this subject.

#### The Incident

On the evening of November 27, 1973, Aruna Ramchandra Shanbaug, aged 24 years, a nurse at the King Edward Memorial (KEM) Hospital, Mumbai, was attacked by Sohanlal Bhartha Walmiki, a sweeper working in the same hospital. Allegedly enraged at her for threatening to report his misconduct, Sohanlal assaulted Aruna in a basement room within the hospital premises. He wrapped a dog chain around her neck while sodomizing her. Due to strangulation, the oxygen supply to her brain was cut off resulting in brain stem contusion injury and cervical cord injury apart from leaving her cortically blind. Since then the victim had been lying in a persistent vegetative state (PVS)<sup>2</sup> in the same bed in a side-room of ward number four of KEM Hospital.

The assailant was traced soon after the crime and was convicted. He served two concurrent seven-year sentences. Little was known about his whereabouts since his release from the prison.

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*Omkar D. Palsule-Desai and N. Ravichandran, Indian Institute of Management Indore, prepared this case as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.*

*This case was prepared based on the secondary source of information details of which are provided in the footnotes. The purpose of this case is not to comment on or to criticize either the Supreme Court of India or its judgment in a particular case rather to discuss about the salient features involved in addressing larger issues in a context derived using a specific example.*

## Petition for Mercy Killing

Based on her own assessment of Aruna since 1982, Pinki Virani, a National Award-winning writer, journalist, and noted social activist, was convinced that Aruna would never have wanted to live life without dignity<sup>3</sup>. Accordingly, claiming to be a next friend, Pinki Virani filed a writ petition (criminal), number 115 of 2009 under criminal original jurisdiction in the Supreme Court of India, for mercy killing on behalf of the petitioner Aruna Ramchandra Shanbaug under Article 32 of the Constitution of India. According to the petition, "Aruna cannot be said to exist in the sense a human being is supposed to live. She is virtually dead and a skeleton. Moreover, there is not the slightest possibility of any improvement in her condition and her body is lying on the bed in KEM Hospital like a dead animal, and this has been the situation for the last 37 years." In her petition, Pinki Virani pleaded with the Supreme Court to have Aruna stopped being fed and let her die peacefully.

### Present Condition: Pinki Virani's Version

In her petition, Pinki Virani described the present condition of Aruna as follows. "Aruna is featherweight and her bones are too brittle to break if her hand or legs are caught awkwardly. She is prone to bed sores as she is lying in the same bed in the flexed foetal position for more than three decades now. Her wrists are twisted inwards. Her teeth have decayed causing her immense pain. She can only be given mashed food, on which she has been surviving so long. Aruna is virtually a dead person and has no state of awareness, and her brain is virtually dead. She can neither see, nor hear anything nor can she express herself or communicate, in any manner whatsoever. She is not able to swallow any liquid food, and the process of digestion goes on in this way as the mashed food passes through her system. Her bodily functions are performed on the bed itself. Once in a while she is cleaned up but in a short while again she goes back into the same sub-human condition. Judged by any parameter, Aruna cannot be said to be a living person. Her life is totally devoid of any human element."

### Counter Affidavits

After receiving the court notice in response to Pinki Virani's petition, Dr. Amar Ramaji Pazare, Professor and Head in KEM hospital, filed a counter affidavit on behalf of the Mumbai Municipal Corporation and the Dean of KEM Hospital. In his affidavit, Dr. Pazare refuted Pinki Virani's claims about Aruna Shanbaug's present condition. For instance, as per Dr. Pazare's observations, "Aruna accepts the food in normal course, and responds to commands by facial expressions or by making sounds. She appears to be happy and smiles when she receives her favorite food items. She also enjoys the devotional songs and music which is played in her room and it has calming effect on her. She makes sounds when she is in need of any help from the hospital staff. She definitely does not seem to be living a painful and miserable life."

Similarly, Dr. Sanjay Oak, Dean of KEM Hospital, issued a statement to the Supreme Court on January 24, 2011, opposing euthanasia for Aruna. Dr. Oak had been a clinical surgeon for last three decades and an administrator of the hospital for last seven years then. He also held a Bachelor of Law degree from Mumbai University. In his statement on Aruna, Dr. Oak said, "She means a lot to KEM Hospital. She is on liquid diet and loves listening to music. We have never subjected

her to intravenous food or fed her via a tube. All these years, she hasn't had even one bedsore. When those looking after her do not have a problem, I don't understand why a third party who has nothing to do with her needs to worry."

In his subsequent affidavit filed in the Supreme Court, Dr. Oak claimed, "Aruna Ramchandra Shanbaug has been admitted in a single room in ward number four which is a ward of general internal medicine patients and she has been there for last 37 years. She is looked after entirely by doctors, nurses and paramedical staff of KEM Hospital. She has been our staff nurse and the unfortunate tragic incidence has happened with her in KEM Hospital and I must put on record that the entire medical, administrative, nursing and paramedical staff is extremely attached to her and considers her as one of us. Her relatives and a gentleman (her fiance) used to visit her in the initial period of her illness but subsequently she has been left to the care of KEM staff."

Mindful of medical, legal, and humane virtues, Dr. Oak opposed the mercy killing petition. However, he admitted, "Aruna's smiles are not purposeful and it would be improper to interpret them as a signal of gratification". According to him, in the world history of medicine there would not be another single case where such a person would be cared and nurtured in bed for 37 long years and would not have developed a single bed sore. He claimed, "This is a testimony of excellent nursing care that KEM nursing staff has given to her. The doctors, nurses and staff of KEM, are determined to take care of her till her last breath by natural process. This care is given not as a part of duty but as a part of feeling of oneness. This one is the finest example of love, professionalism, dedication and commitment".

While praising the support staff at KEM Hospital, Dr. Oak also expressed his dissatisfaction with the Indian society overall. According to his affidavit, the entire society had not matured enough to accept euthanasia or mercy killing. He feared that euthanasia might get misused, and any monitoring and deterring mechanisms might fail to prevent those unfortunate incidences. He also felt that a matured society was best judged by its capacity and commitment to take care of its "invalid" ones. Further, he claimed that they were the children of Lesser God and in fact, as a developing nation we should move in a positive manner of taking care of several unfortunate ones paralyzed with deficiencies, disabilities and deformities.

### **The Supreme Court: Initial Response**

Without hearing testimony of either of the parties in its court, the bench could have dismissed Pinki Virani's petition based on the following arguments. First, under Article 32 of the Constitution of India the petitioner had to prove violation of a fundamental right, such as the right to life. Second, in its judgment on Gian Kaur v/s State of Punjab, 1996(2) SCC 648 case, the apex court had concluded that the right to life guaranteed by Article 21 of the Constitution did not include the right to die, and hence, unnatural death curtailing the natural span of life could not be lawful. According to this bench, the petitioner of the current petition had not shown violation of any of her fundamental rights. Also, there was the precedence of the Gian Kaur case based on which the current petition could have been dismissed.

However, citing variance between the allegations in the writ petition filed by Pinki Virani and the counter affidavit submitted by Dr. Pazare, and also in view of the importance of the issues involved,

on January, 24, 2011, the Supreme Court decided to go deeper into the merits of the case. The court ordered to set up a medical panel to examine Aruna's physical and mental condition. The court also appointed T.R.Andhyarujina, learned Senior Counsel, as Amicus Curiae (friend of the court) in the case.

### Medical Panel

A team of three very distinguished doctors was constituted in order to examine Aruna thoroughly and submit a report about her condition. These doctors were: (i) Dr. J.V.Divatia, Professor and Head, Department of Anesthesia, Critical Care and Pain at Tata Memorial Hospital, Mumbai, (ii) Dr. Roop Gursahani, Consultant Neurologist at P.D.Hinduja, Mumbai; and (iii) Dr. Nilesh Shah, Professor and Head, Department of Psychiatry at Lokmanya Tilak Municipal Corporation Medical College and General Hospital. In addition to the prescribed examination including evaluation of physical, neurological and mental status of the patient, this team also critically analyzed the longitudinal case history and observations of last 37 years from the Dean and the medical and nursing staff of KEM Hospital. The significant findings reported by the medical team were as follows:

1. Aruna had developed non-progressive but irreversible brain damage secondary to hypoxic-ischemic brain injury consistent with the known effects of strangulation. Most authorities considered a period exceeding four weeks in this condition, especially when due to hypoxic-ischemic injury as confirming irreversibility. In Aruna's case, this period had been as long as 37 years, making her perhaps the longest survivor in this situation.
2. Aruna was clearly neither brain dead nor was she in coma. On the contrary, she met most of the criteria for being in a PVS. In this state, as the centres in the brain controlling the heart and breathing were intact, there was no threat to life, and the patient could survive for many years with expert nursing care.
3. Her dementia had not progressed and had remained stable for last many years and it was likely to remain same over next many years. Then there was no treatment available for the brain damage she had sustained.
4. She had evidence of intact auditory, visual, somatic and motor primary neural pathways. However no definitive evidence for awareness of auditory, visual, somatic and motor stimuli was observed during the examinations.

According to the panel's report, "Aruna is alive though with the help of artificial life support. During the examination, she did not demonstrate any catatonic, hostile or violent behavior, and she is mentally stable. She also does not seem to be living a painful and miserable life."

### KEM Hospital Staff

In addition to the medical panel, the KEM Hospital staff was one of the stakeholders that were heard by the Supreme Court in Aruna's case. In response to Pinki Virani's petition, the hospital staff including doctors, sister-in-charge of ward number four Lenny Cornielo, Assistant Matron Urmila Chauhan and others had communicated to the Supreme Court, "We are looking after Aruna Shanbaug. Aruna is not just another patient in the hospital; she is the bond that unites us. We want to live

with her and also want her to live." The hospital staff had made similar demands in the past too. For example, in the late 1970s, when Aruna was briefly moved to another hospital in Mumbai, the KEM Hospital staff went on a three-day strike and demanded that she be brought back. Recently, Tidi Makwana, a retired nurse, who used to take care of Aruna while in the service, had even offered to continue to take care of her without any salary and without charging any traveling expenses. Reema Pawar, Senior Staff Nurse, reported, "The nurses at the KEM Hospital are overworked, and sometimes brusque, and yet, you won't catch any nurse complaining about having to look after Aruna - maybe any other patient, but not Aruna<sup>4</sup>".

It was reported that the hospital staff diligently fed Aruna, washed her, cut her nails, and generally took care of her, and it had been doing this not on a few occasions but day and night, year after year for last 37 years. According to the court, this was one of the finest examples of dedication and sacrifice the human kind should learn from the KEM hospital staff. Sunita Munj, one of the nurses, mentioned, "Nobody talks about the incident, no gossiping at all. We just do our duty." Dr. Oak also reported, "Aruna means a lot to KEM Hospital. With every new batch of entrants, the student nurses are introduced to her and they are told that she is one of us and she continues to be one of us and then they whole-heartedly take care of Aruna." According to him, the most striking feature of Aruna's caregivers was that they went about their routines undramatically, seeking no special honor for looking after her. In a sense they were her family. Recently, the hospital staff admitted that Pinki Virani's petition and the consequent spotlight on Aruna's case led them to rededicate themselves consciously to the concept of service, not just for Aruna, but as a central theme of their jobs.

### Immediate Family

One of the most important stakeholders in this case was Aruna's immediate family and relatives who seemed to have forgotten her long back. Her father had passed away before the tragic incident took place, and her mother, who is also no more, deserted her soon after the event. Her elder brother Balarkishna Shanbaug had been living a quiet life in Bangalore, India. Anand, Aruna's younger brother, was a recluse living in Ankola, not far away from Mumbai. When asked about his wish for Aruna, Anand said, "I almost wished that God would give her a quick death, and deliverance from this ordeal<sup>5</sup>". One of Aruna's elder sisters, Shanta Nayak, who was living in Mumbai, used to visit her in the early days. Later, Shanta also stopped visiting her citing old age and health issues, but not before the hospital authorities denied Shanta's demands for a house to live in, Aruna's salary, a nurse and a doctor to take care of her sister, Aruna. Contrary to her brother, Shanta's wish was that Aruna died of natural causes<sup>6</sup>. Three of her other sisters got married and moved on with their lives away from Aruna long ago.

### Counsel Reports

While arriving at its judgment on the current case, the Supreme Court examined the submissions of the learned counsels for both the parties. Additionally, the court also heard Attorney General for India and the amicus curiae appointed in the case.

Drawing parallel with the decision of the Supreme Court in *Vikram Deo Singh Tomar v/s State of Bihar 1988 (Supp) SCC 734* case, Shekhar Naphade, learned senior counsel for the petitioner, demanded that Aruna should be allowed to die. In this case, the counselor's main argument was "life is not mere living but living in health. Health is not the absence of illness but a glowing vitality", and it was missing in Aruna's case.

On the contrary, G.E.Vahanvati, learned Attorney General for India stated that the report of the Law Commission of India on euthanasia had not been accepted by the Government of India. According to him, "Indian society is emotional and care-oriented; we do not send our parents to old age homes. There is a great danger in permitting euthanasia; the relatives of a person may conspire with doctors and get him/her killed to inherit his/her property. Also, tomorrow there may be a cure to a medical state perceived as incurable today."

T.R.Andhyarujina, Amicus Curiae in the case, reported, "In general, in common law it is the right of every individual to have the control of his own person free from all restraints or interferences of others. Every human being of adult years and sound mind has a right to determine what shall be done with his own body."<sup>footnote{Andhyarujina, T.R. 2011. Life, death and what lies between. Indian Express (March 10). 11.}</sup> According to him, "The principle of self-determination applies when a patient of sound mind requires that life support should be discontinued. The same principle applies where a patient's consent has been expressed at an earlier date before he became unconscious or otherwise incapable of communicating it as by a 'living will' or by giving written authority to doctors in anticipation of his incompetent situation. In summary, a question is not whether it is in the best interest of the patient that he should die. The question is whether it is in the best interest of the patient that his life should be prolonged by the continuance of the life support treatment."

However, Andhyarujina differed from the view of the learned Attorney General in that while the latter opposed even passive euthanasia, Andhyarujina was in favor of it, provided the decision to discontinue life support was taken by responsible medical practitioners.

Pallav Sisodia, learned senior counsel for the Dean, KEM Hospital also submitted a report stating that Pinki Virani had no locus standi in the matter and it was only the KEM Hospital staff which could have filed such a writ petition, if they desired to do so. On this point, T.R.Andhyarujina endorsed Pallav Sisodia's opinion.

## Euthanasia

Based on the counselors' arguments, the Supreme Court acknowledged the distinction between the act of killing and not saving one's life. Accordingly, the court also emphasized two distinct types of euthanasia: active and passive. The definitions of two types provided by the court were as follows: "active euthanasia entails the use of lethal substances or forces to kill a person, and passive euthanasia entails withholding of medical treatment for continuance of life. An important idea behind this distinction is that in passive euthanasia the doctors are not actively killing someone; they are simply not saving them."

The court also observed that euthanasia could be further categorized as either voluntary or non-voluntary. The first was where the consent was taken from the patient, whereas in the latter, such consent was unavailable.



In reference to Aruna's case, the Supreme Court emphasized the distinction between active and passive euthanasia, and argued that such distinction was essential and valid. The court concluded, "proponents of euthanasia say that while we can debate whether active euthanasia should be legal, there can be no debate about passive euthanasia: You cannot prosecute someone for failing to save a life." In its argument, the court said, "While we usually applaud someone who saves another person's life, we do not normally condemn someone for failing to do so. If one rushes into a burning building and carries someone out to safety, he will probably be called a hero. But if one sees a burning building and people screaming for help, and he stands on the sidelines - whether out of fear for his own safety, or the belief that an inexperienced and ill-equipped person like himself would only get in the way of the professional firefighters, or whatever - if one does nothing, few would judge him for his inaction. One would surely not be prosecuted for homicide. (At least, not unless one started the fire in the first place.)"

While active euthanasia was a crime all over the world except where permitted by legislation, passive euthanasia was lawful in countries such as Netherlands, Belgium, etc. However, in India, any kind of euthanasia was not permitted by law. Moreover, there was no statutory provision in the country as to the legal procedure for withdrawing life support to a person in PVS or who was otherwise incompetent to take a decision in this connection.

### **The Supreme Court: Final Judgment**

According to the findings of the Supreme Court, the KEM hospital staff had developed an emotional bonding and attachment to Aruna Shanbaug, and in a sense they were her real family. Pinki Virani who claimed to be the next friend of Aruna Shanbaug and had filed the petition on her behalf was not a relative of Aruna Shanbaug nor could she claim to have such close emotional bonding with her as the KEM hospital staff. Hence, the court treated the KEM hospital staff as the next friend of Aruna Shanbaug and declined to recognize Pinki Virani as her next friend. In its judgment, the court stated, "No doubt Pinki Virani has written a book<sup>7</sup> about Aruna Shanbaug and has visited her a few times, and we have great respect for her for the social causes she has espoused, but she cannot claim to have the extent of attachment or bonding with Aruna which the KEM hospital staff, which has been looking after her for years, claims to have".

The court observed, "This case has no parallel in the country's medico-legal history. The country also has growing tribes of mercy killing advocates. In the past, courts have often received petitions from terminally ill patients seeking an end to their pain by asking for death but all applications have got rejected on the basis of one principle - the right of life is sacred".

The Supreme Court also noted in the writ petition filed by Pinki Virani, "It is stated that Aruna Shanbaug is in fact already dead and hence by not feeding her body any more we shall not be killing her". Challenging Pinki Virani's death claim about Aruna, the court asked, "When can a person be said to be dead?" After critically examining the medical and legal literature on evolution of definition of death, the court concluded that a person was said to be dead if his/her brain was dead, i.e., the irreversible cessation of all functions of the entire brain, including the brain stem. The court also highlighted that this definition went beyond acknowledging consciousness, and concluded that brain death was different from a persistent vegetative state, where the brain stem continued to work, and so some degree of reactions might occur, though the possibility of regaining consciousness

was relatively remote. Even when a person was incapable of any response, but was able to sustain respiration and circulation, he could not be said to be dead. The mere mechanical act of breathing, thus, would enable him or her to be "alive". Hence, "Aruna is not dead," the court concluded.

The court further elaborated, "In most cases, the petitions are filled by distance and blood relatives, but what makes this case unique is that a person unrelated to Aruna, moved by her unrelenting suffering, has filed this petition. In any of such cases judged earlier, it was never clarified who could decide whether life support should be discontinued in the case of an incompetent person, e.g., a person in coma or PVS". Citing this gap between reality and the existing laws, the Supreme Court warned, "This is an extremely important question in India because of the unfortunate low level of ethical standards to which our society has descended, its raw and widespread commercialization, and the rampant corruption, and hence, the court has to be very cautious that unscrupulous persons who wish to inherit the property of someone may not get him eliminated by some crooked method. Also, since medical science is advancing fast, doctors must not declare a patient to be a hopeless case unless there appears to be no reasonable possibility of any improvement by some newly discovered medical method in the near future". Additionally, the court categorically stated that it was experts like medical practitioners who could decide whether there was any reasonable possibility of a new medical discovery which could enable such a patient to revive in the near future.

In view of the absence of any laws on euthanasia and in order to facilitate resolutions on petitions seeking euthanasia until Parliament made such laws, the Supreme Court highlighted the existing powers extended by Article 226 of the Indian Constitution to High Courts. It also provided a detailed procedure that each High Court was required to adopt when such an application was filed. The court stated, "The approval of the High Court should be taken in this connection. This is in the interest of the protection of the patient, protection of the doctors, relative and next friend, and for reassurance of the patient's family as well as the public. This is also in consonance with the doctrine of *parens patriae* (guardian or father of the country) which is a well known principle of law."

In its judgment, the Supreme Court also commended the entire staff of KEM Hospital for their noble spirit and outstanding, exemplary, and unprecedented dedication in taking care of Aruna for so many long years. Although the court dismissed the original petition, it regarded Pinki Virani as a public spirited person who filed the petition for a cause she bona fide regarded as correct and ethical, and held her in high esteem.

### **Issues of Concern**

In its judgment, the court noted that two of the cardinal principles of medical ethics were patient autonomy which means his/her right to self-determination and beneficence which is acting in what is or judged to be in patient's best interest. According to the medical reports presented in Aruna's case, Aruna was neither capable of conveying any of her wishes nor did she do so to any surrogate in the past. Acknowledging the enormity of potential impact of any judgment in Aruna's case that may have on the entire society and the Indian judiciary, the Supreme Court broadened its probe by posing following questions in sensitive issues such as euthanasia:

1. For a person in a PVS, should withholding or withdrawal of life sustaining therapies be permissible or 'not unlawful'?
2. If the patient had previously expressed a wish not to have life-sustaining treatments in case of futile care or a PVS, should his/her wishes be respected?
3. In case a person had not previously expressed such a wish, if his family or next of kin made a request to withhold or withdraw futile life-sustaining treatments, should their wishes be respected?
4. Aruna Shanbaug had been abandoned by her family and was being looked after for the last 37 years by the staff of KEM Hospital. Who should take decisions on her behalf?

## Response

The KEM Hospital staff erupted with joy as the Supreme Court rejected the mercy killing petition. They distributed sweets and cut a cake to celebrate what they termed the "rebirth" of their celebrity patient. The staff said, "We always felt happy to care for Aruna and are thrilled by the Supreme Court's ruling<sup>81</sup>".

Pinki Virani reacted to the Supreme Court's verdict as "Because of this woman (Aruna Shanbaug), who has never received justice, no other person in a similar position will have to suffer for more than three and a half-decades<sup>91</sup>". Pinki Virani's lawyer also ruled out filing an appeal saying the two-judge ruling was final till the Supreme Court decided to constitute a larger bench to re-examine the issue.

## Explanatory Notes

- Amicus Curiae: In Latin, the phrase means "friend of the court". An amicus curiae is someone, not a party to a case, who volunteers to offer information to assist a court in deciding a matter before it. However, the decision on whether to admit the information lies at the discretion of the court.
- Article 21 of the Constitution of India: It is about "Protection of Life and Personal Liberty". By this article, no person shall be deprived of his/her life or personal liberty except according to procedure established by law.
- Article 226 of the Constitution of India: It explains the power of High Courts to issue certain writs. It states, "Notwithstanding anything in Article 32, every High Court shall have power, throughout the territories in relation to which it exercises jurisdiction, to issue to any person or authority, including in appropriate cases, any Government, within those territories directions, orders or writs, including writs in the nature of habeas corpus, mandamus, prohibition, quo warranto and certiorari, or any of them, for the enforcement of any of the rights conferred by Part III and for any other purpose".
- Article 32 of the Constitution of India: It grants an extensive original jurisdiction to the Supreme Court in regard to enforcement of Fundamental Rights.

- **Brain stem contusion injury:** The lower part of the human brain that connects the brain to the spinal cord is called as brain stem. Injury to the brain stem can lead to permanent damage, since the brain stem regulates almost all the daily activities of our body. Basic body functions like breathing and heartbeat can get disrupted, due to a brain stem injury. It is a very fatal health condition that can change one's memory, paralyze or change one's personality.
- **Cervical cord injury:** It refers to an injury to the cervical or upper region of the spinal cord that is caused by trauma instead of a disease. Depending on where the spinal cord and nerve roots are damaged, the symptoms can vary widely, from pain to paralysis to incontinence.
- **Cortical blindness:** It is the total or partial loss of vision in a normal-appearing eye caused by damage to the visual area in the brain's occipital cortex. It can be associated with visual hallucinations, denial of visual loss, and the ability to perceive moving but not static objects.
- **Dementia:** It means a serious loss of cognitive ability.
- **Hypoxic-ischemic brain injury:** It is a condition that occurs when the entire brain is deprived of an adequate oxygen supply, but the deprivation is not total.
- **Next friend:** A person who has volunteered to help or assist another person who is incapable physically or mentally or who is a minor, to file a lawsuit himself/herself. The next friend (generally a relative) is not the party to the lawsuit and his/her duty ends on completion of the lawsuit.
- **Original jurisdiction:** A case that directly goes to the Supreme Court of India.
- **Parens Patriae:** It implies that the King is the father of the country and is under obligation to look after the interest of those who are unable to look after themselves. The idea behind Parens Patriae is that if a citizen is in need of someone who can act as a parent who can make decisions and take some other action, sometimes the State is best qualified to take on this role.
- **Persistent vegetative state (PVS):** It is defined as a clinical condition of unawareness of self and environment in which the patient breathes spontaneously, has a stable circulation and shows cycles of eye closure and opening which may simulate sleep and waking.
- **Writ:** In common law, a writ is a formal written order issued by a body with administrative or judicial jurisdiction such as a court. Typically, a writ is passed in the absence of any formal law, procedure or an official order.
- **Writ petition:** It is an application seeking a writ.

## Notes

- 1 Katju, M. and Mishra, S. 2011. Judgment in the Supreme Court of India on Criminal Original Jurisdiction Writ Petition (Criminal) No. 115 of 2009 by Aruna Ramchandra Shanbaug (Petitioner) versus Union of India and others (Respondents). Source: <http://judis.nic.in/supremecourt/chejudis.asp>.
- 2 For more information about terminologies from medical and legal professions used in this case, refer "Explanatory Notes" section.

- 3 Virani, P. 2011. Condemned to a painful life. The Hindu (March 20).
- 4 Iyer, K. 2011. On duty at left side room, ward no. 4. Indian Express (March 13). 13.
- 5 Raghuram, M. 2011. Aruna Shanbaug's brother wishes her a quick death. DNA: Daily News & Analysis (March 8).
- 6 NDTV Correspondent. 2011. Let her die when she has to: Aruna Shanbaug's sister. Source: <http://www.ndtv.com/article/india/let-her-die-when-she-has-to-aruna-shanbaugs-sister-91329>.
- 7 Virani, P. 1998. Aruna's Story: The true account of a rape and its aftermath. Penguin Book, New Delhi.
- 8 Reporter. 2011. Rebirth for Aruna, say joyous Mumbai hospital staff. Deccan Herald. (March 7).
- 9 Misra, A. 2011. Because of Aruna, noone else will have to suffer. Hindustan Times. (March 7)

### Authors' Profile

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## Euthanasia: Should it be Lawful or Otherwise?

DVR Seshadri

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The question of Euthanasia is indeed an extremely complex issue as the case brings out clearly. The views will necessarily be polarized (black & white / zero-one / binary) with no possibility for shades of grey or any middle ground. Keeping aside for the moment the discussion on Aruna Shanbaug, I believe that some of us may have come across kindred situations at some point of time. Moving into a first person account, an uncle of mine some three years ago was admitted into hospital after a massive heart attack. He had prior history of multiple ailments and was in advanced age (about 85). Initially his children tried their best to save their father and asked the hospital to go in for very aggressive intervention, which resulted in the patient being put on ventilator. This went on for two weeks, giving enough time for some of the children residing abroad to visit their father. One such son was a well-known doctor in Australia. Having taken stock of the situation, he concluded that this was a hopeless case, with no chance of recovery and while the patient could technically be kept alive through the ventilator, it was pointless, besides being very expensive, as the medical bills were soaring rapidly. He convinced his siblings and together they convinced the hospital to withdraw the life support system (ventilator). The patient then passed away almost instantly.

I had a similar experience in regard to my father some two years ago. He was 87, had lung failure and several other complications. In the dead of the night my sister and I were summoned to the Intensive Care Unit, and the doctor gave us two options: Let nature take its course (i.e., non-aggressive intervention by the hospital) vs. very aggressive intervention, including putting him on Ventilator, with a clear cautionary remark that this was a one way street and he would never be able to survive without the ventilator for even a minute, and even in the ventilator, he will be as good as not being alive (although he would not be dead). The doctor also warned us of the expenses this futile attempt would entail. The doctor said that we could choose to keep him alive till my elder brother from Australia had a chance to visit and at least mentally say his goodbyes. My sister and I had to make a call, and the answer was, let nature (God) take its course. We were then asked to sign a form that absolved the hospital of any further responsibilities. It felt like signing our father's death warrant, but it had to be done as that was the only sane thing to do at that point of time. Predictably he passed away peacefully about 12 hours thereafter (without having to undergo the ordeal of being put through the ventilator).

I believe the same drama may have played out on a much bigger global stage recently with Bhagawan Satya Sai Baba of Puttaparthi.

The learning from all these is that the proxy euthanasia as above is perhaps being done day in and day out in hospitals across the country. There are myriad other variants that one can visualize. It is common knowledge that today our roads in urban areas are a nightmare for any patient in a life threatening situation being taken to hospital in an ambulance, car or auto or any other means. Here the traffic snarls acts as the arbitrator in a life and death situation. In the ventilator or other life support scenario described above, what about a situation where the hospital's power situation fails despite having some back-up systems? What about a situation where the patient's relatives cannot

afford the cost of prolonging life in a futile manner? Given the mercenary approach of most of the hospitals today, which think of themselves first as profit making businesses and then as care givers, the answer is obvious. The central point I am making is that euthanasia is already being practiced in different avatars across the country.

The reason the Aruna Shanbaugh case has attracted so much attention is the emotional bond she had with the nurses and doctors of the KEM Hospital. For a minute, if we imagine that Aruna was not an earlier employee of the hospital, would she still be living for 37 years? Given that all her relatives took a reality call and stopped visiting her within a few years of her disastrous tryst with destiny, would the hospital have continued to care of her, spending money and effort to keep her alive? These are some important dimensions to examine.

Of course, the apex court in the country did a marvelous job of eliciting the views of all stakeholders and came to a very balanced view. The fact that Ms. Virani was really not as close a next friend as the hospital staff helped in ensuring that her recommended course of action was not approved by the court. Such level of intense bonding is very rare to see in India today among perfectly normal people. Forget about such bonding when a person is in a vegetable-like state as in the case of Aruna.

The court rightly came up with the crux of the issue in legalizing euthanasia in the country. Given the large scale degradation of values in the country, legalizing euthanasia would open the flood gates for people scheming to forcibly (and legally) end lives of people that they want eliminated for reasons of greed, enmity, etc. We have before us how good intent has been derailed in the legislation forbidding gender determination tests, through a deadly concoction of corruption, greed, etc., resulting in frighteningly adverse female to male ratio in the country that has now set off alarm bells even in the India Parliament!

Having said all this, I reiterate that the issue being discussed in the case is non trivial. While there are enough examples of countries in advanced stages of implementing euthanasia such as Australia, our country has its own problems relating to corruption, poor monitoring, etc. that make legalization of euthanasia a recipe for disaster.

### **Author's Profile**

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## Euthanasia: Should it be Legal or Otherwise?

R Hariharan

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There had been widespread national interest in the Supreme Court of India's judgement on a writ petition filed by Ms. Pinki Virani, seeking permission for carrying out euthanasia of her friend Ms. Aruna Ramachandra Shanbaug, former nurse of the KEM Hospital in Mumbai. Ms. Aruna is in a persistent vegetative state (PVS) for 37 years after a brutal sexual assault while on duty in the hospital. This case has been taken up as the subject of this case study.

The case study covers in detail the background to the case, and the arguments both in favour of euthanasia put forward by the counsel for Pinki Virani and against it put forward by the counsel for the KEM Hospital staff, Dean of the Hospital as well as the amicus curiae appointed by the court. Salient points of the findings of a team of medical experts that examined Ms. Aruna's condition and confirmed her vegetative state are also included.

The case study concludes by raising the following controversial and sensitive issues on euthanasia touched upon by Supreme Court in its judgement:

1. Should withholding or withdrawal of therapies for sustaining life be permissible or declared 'not unlawful' in the case of a patient in PVS?
2. Should a person's expressed wish not to have life-sustaining treatment in case of futile care or a PVS be respected when such a situation arises?
3. If the patient has not expressed such a desire, should the court respect the wishes of his family or next of kin makes a request withhold or withdraw futile life-sustaining treatments?
4. More importantly, in this case, who should take decisions on behalf of Ms. Aruna Shanbaug; her family members who abandoned her long back or the KEM Hospital staff who looked after her for 37 years?

### Comments

This is a very well written and self contained case study as it contains useful inputs on euthanasia itself. Perhaps, it would be useful if the objective of the case study with more pointed reference to issues is brought upon more sharply.

As observed by the Supreme Court, Ms. Aruna's case is a unique one among cases seeking permission for euthanasia after she went into PVS from November 27, 1973 onwards. A study of euthanasia involves three interlinked aspects - ethical, legal and social. Ms. Aruna's case goes beyond the question of active or passive euthanasia as it raises the responsibility or ownership for taking a decision on behalf of an individual who has been in a vegetative state for nearly four decades.

So the case study would perhaps be more useful if it focuses and dilates upon one of the aspects. That could provoke the student to analyse the complex and inter related issues involved to facilitate understanding of cases of euthanasia in general and passive euthanasia, in particular which was considered feasible by the Supreme Court.



A second important question is the issue of permitting euthanasia, even of the passive kind, in the country. In recent years, this subject has come to the fore as it relates to calls for protecting fundamental freedoms and rights of individuals. As India has not enacted any laws on the subject, the courts had been using precedents of earlier judgements. This is a subjective approach and unsatisfactory. This issue has to be debated in parliament for an enactment that would protect basic interest of the individual and his or her right to life. It should provide for a structural framework for carrying out passive euthanasia if and when so decided. That would provide some informed learning to the public at large on a number of issues related to euthanasia.

The third issue is the responsibility of state in enacting on issues touching upon ethical and moral issues as well as individual liberty. As early as 1988, the Law Commission of India chaired by Justice AR Lakshmanan had recommended to the Government of India the need for legalising euthanasia to allow terminally ill to end their lives. According to the report, "If a person is unable to take normal care of his body or has lost all the senses and if his real desire is to quit the world, he cannot be compelled to continue with torture and painful life. In such cases, it will indeed be cruel not to permit him to die."

Though over two decades have passed since then, India has not enacted any law legalising euthanasia. However, provoked by the debate after the Supreme Court judgement on Ms. Aruna Shanbaugh's case, on March 7, 2011 the Law Minister Mr. Veerappa Moily said the Right to Life is a right vested with a person. "Therefore, there is a need for a serious debate into the matter. It has to be examined, it has to be debated upon," he added. The dilemma of the government in enacting legislation on a sensitive issue that has religious and moral connotations is understandable. Moreover, when the rule of law in the country is far from satisfactory and enactment on euthanasia could be subject to misuse by vested interests. Thus a well drafted bill that is widely debated in the country and then legislated after suitably modifying it is perhaps the answer.

### Author's Profile

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## Euthanasia: Should it be Lawful or Otherwise?

M.N. Buch

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The dictionary meaning of euthanasia given in the Chambers Twenty-first Century Dictionary is, "euthanasia-the act or practice of ending the life of a person who suffers from an incurable and often painful or distressing illness". Euthanasia can be active in that some positive action is taken to terminate life. This could include the administration of a drug which causes death. Euthanasia can also be passive in that life support systems such as a heart-lung machine can be withdrawn, by whose artificial aid the patient's vital systems were made to function. The condition of such a patient would be that without such support system the patient would not remain alive. Throughout the world the number of such support systems as compared to the number of patients is limited and at least in the Indian context there are thousands of people who do not have access to such hospital facilities and whose life ends as a result of illness. Would one define such cases as euthanasia, death by negligence, a compulsion of physical availability of necessary equipment or a fact of economic life of limited resources which limit available medical facilities?

The very first commandment that God gave man through Moses was "Thou shall not kill". The Hippocratic oath to which every doctor prescribes amounts to saying "Thou shall endeavour to keep alive". The scheme of Chapter XVI of the Indian Penal Code is that whosoever by positive action, inducement or negligence causes death commits the offence of culpable homicide in varying degrees. Causing death can be justified only through execution of a capital sentence pronounced by a competent court, by the police and citizens in protecting life and maintaining order and by the armed forces in defence of the country. All other forms of causing death amount to an offence. The ethics of the issue apart the law is very clear in stating that causing death is an offence. Euthanasia through positive action, therefore, amounts to culpable homicide and I think it would be rash on our part to try and question this moral, religious and legislative wisdom.

Any system of laws has to be designed to serve the common good of the largest number of people. There is no law which can please every one, cover every contingency, and provide an answer to every question. That is why laws evolve by judicial pronouncement which circumscribe law, interpret it, or expand it. Our courts have always held that where the law is silent it is the duty of the court to lay down the law. They are not legislating thereby and certainly Article 141 of the Constitution does not convert the Supreme Court into Parliament. But the courts do, will and must state what the law is or what the law means and it is this judge made law which keeps the rule of law alive and vibrant. However, the Constitution does not permit anyone, even a judge, to play God and decide whether a person whom others consider to have lost the characteristics of a normal life should be allowed to live or not. Please remember that Hitler used his gas chambers for mass ethnic killing, giving euthanasia as an excuse for ridding the world of those whom he considered untermenschen or sub-human. In a way Pinki Virani considers Aruna Shanbaug as an untermenschen because she is not as lively and mobile as Pinki. By this standard should we consider parties which subscribe to a political philosophy other than our own as being suitable for euthanasia because their unfortunate political views are unacceptable?

Generally life support systems are withdrawn from a patient with the approval of the patient's close relatives only after the doctors attending to the patient are convinced that all vital systems have failed and that it is only the support systems which are keeping the blood circulating or lungs being filled with air and then exhaling. Withdrawing or retaining the life support system makes no difference because life in the ordinary sense already ceased to exist. This is not a case of euthanasia but rather of a medical decision to discontinue support which is the only sign of the body still being alive. In Aruna Shanbaug's case the petitioner wants the stoppage of any nutrition to Aruna because of her bodily functions is performed on the bed itself. Does that mean that a patient who is temporarily immobile and has to use a bedpan should be denied food? So long as those treating Aruna Shabaug are satisfied that she is in effect alive in the communally understood sense of the world no one has a right to take action which would terminate her life. This is not euthanasia - it is culpable homicide which just stops short or murder and the advocate of killing in this case would be liable to action under section 304 of Indian Penal Code.

I would end by stating that our Hon'ble Supreme Court has no business to waste its time on petitions such as that's filed by Pinki Virani, which should have been thrown out of court summarily. The Hon'ble Judges of the Supreme Court who heard the case have gained a little brief publicity, the media has been able to increase its sale through sensation mongering and the valuable time of a number of medical personnel has been spent in fighting the case rather than in attending to their patients. My respectful submission to the Supreme Court would be that its Hon'ble Judges start acting as judges and not lend the apex court for promoting the social ambitions of people such as Pinki Virani. What she did is not social activism, it is social ladder climbing.

### Author's Profile

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## Euthanasia: Should it be Lawful or Otherwise?

Esha Jhunjunwala

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The word euthanasia is derived from the Greek word "euthanatos" meaning "good death" and it refers to the practice of ending a life in a manner which relieves pain and suffering.

Based on whether a person gives informed consent or not, euthanasia may be classified into three types: voluntary, non-voluntary and involuntary. Voluntary, non-voluntary and involuntary euthanasia can all be further divided into passive or active variants.

### Passive and Active Euthanasia

Passive euthanasia entails the withholding of common treatments, such as antibiotics, necessary for the continuance of life. Active euthanasia entails the use of lethal substances or forces to kill and is the most controversial means.

### Voluntary, non-voluntary and involuntary euthanasia

Euthanasia conducted with the consent of the patient is termed voluntary euthanasia. Active voluntary euthanasia is legal in Belgium, Luxembourg and the Netherlands. Passive voluntary euthanasia is legal throughout the U.S. When the patient brings about his or her own death with the assistance of a physician, the term assisted suicide is often used instead. Assisted suicide is legal in Switzerland and the U.S. states of Oregon, Washington and Montana. Euthanasia conducted where the consent of the patient is unavailable is termed non-voluntary euthanasia. Examples include patients in a persistent vegetative state or coma who are unable to make an informed request for death. Euthanasia conducted against the will of the patient is termed involuntary euthanasia.

There is a debate within the medical and bioethics literature about whether or not the non-voluntary (and by extension, involuntary) killing of patients can be regarded as euthanasia, irrespective of intent or the patient's circumstances.

### Legal Position

Passive euthanasia is legal in India. On 7 March 2011, the Supreme Court of India legalised passive euthanasia by means of the withdrawal of life support to patients in a permanent vegetative state. The decision was made as part of the verdict in a case involving Aruna Shanbaug, who has been in a vegetative state for 37 years at King Edward Memorial Hospital. The high court rejected active euthanasia by means of lethal injection. In the absence of a law regulating euthanasia in India, the court stated that its decision becomes the law of the land until the Indian parliament enacts a suitable law. Active euthanasia, including the administration of lethal compounds for the purpose of ending life, is still illegal in India.

As India had no law about euthanasia, the Supreme Court's guidelines are law until and unless Parliament passes legislation. The following guidelines were laid down:

1. A decision has to be taken to discontinue life support either by the parents or the spouse or other close relatives, or in the absence of any of them, such a decision can be taken even by a person or a body of persons acting as a next friend. It can also be taken by the doctors attending the patient. However, the decision should be taken bona fide in the best interest of the patient.
2. Even if a decision is taken by the near relatives or doctors or next friend to withdraw life support, such a decision requires approval from the High Court concerned.
3. When such an application is filed the Chief Justice of the High Court should forthwith constitute a Bench of at least two Judges who should decide to grant approval or not. The Bench will nominate a committee of three reputed doctors, who will give report regarding the condition of the patient. Before giving the verdict a notice regarding the report should be given to the close relatives and the State. After hearing the parties, the High Court can give its verdict.

### Arguments for Legalising Euthanasia

Regarding euthanasia, at the present juncture, the debate largely revolves around active euthanasia and not passive euthanasia.

Supporters of euthanasia argue that society is obligated to acknowledge the rights of patients and to respect the decisions of those who select euthanasia. It is argued that euthanasia respects the individual's right to self-determination or his right of privacy. Interference with that right can only be justified if it is to protect essential social values, which is not the case where patients suffering unbearably at the end of their lives request euthanasia when no alternatives exist. Not allowing euthanasia would come down to forcing people to suffer against their will, which would be cruel and a negation of their human rights and dignity.

Every person has a right to live with at least a minimum dignity and when the state of his existence falls below even that minimum level then he must be allowed to end such tortuous existence. In such cases relief from suffering (rather than preserving life) should be the primary objective of health-care providers.

Supporters of active euthanasia contend that since society has acknowledged a patient's right to passive euthanasia (for example, by legally recognising refusal of life-sustaining treatment), active euthanasia should similarly be permitted. When arguing on behalf of legalising active euthanasia, proponents emphasise circumstances in which a condition has become overwhelmingly burdensome for the patient, pain management for the patient is inadequate, and only death seems capable of bringing relief. Moreover, in light of the increasing pressure on hospital and medical facilities, it is argued that the same facilities should be used for the benefit of other patients who have a better chance of recovery and to whom the said facilities would be of greater value. Thus, the argument runs, when one has to choose between a patient beyond recovery and one who may be saved, the latter should be preferred as the former will die in any case.

It is not the case of the supporters of euthanasia that this right is not capable of exploitation. Rather they point out that almost any individual freedom involves some risk of abuse and argue that such risks can be kept to a minimum by using proper legal safeguards. Furthermore, merely because the risk of abuse of a right exists is no reason to deny a person the right itself.

## Arguments against Legalising Euthanasia

The controversy over active euthanasia remains intense, in part because of opposition from religious groups and many members of the legal and medical professions. Opponents of euthanasia treat it as a euphemism for murder and maintain that euthanasia is not the right to die but the right to kill.

They emphasise that the health-care providers have professional obligations that prohibit killing and maintain that euthanasia is inconsistent with the roles of nursing, caregiving, and healing. Instead, with the rapidly advancing medical science it is very much possible that those ill today may be cured tomorrow. Hence, the society has no right to kill them today and thereby deny them the chance of future recovery.

Further, it is not always that the patient wants to die. The relatives of the patient are also allowed to decide whether to let the patient live. In addition, even where the consent is that of the patient it may be one obtained by force. Use of physical force here is highly unlikely. But emotional and psychological pressures could become overpowering for depressed or dependent people. If the choice of euthanasia is considered as good as a decision to receive care, many people will feel guilty for not choosing death. Moreover, financial considerations, added to the concern about "being a burden," could serve as a powerful force that would lead a person to "choose" euthanasia or assisted suicide.

Moreover, it is argued that when a healthy person is not allowed to commit suicide then why a diseased person should be allowed to do so. It is pointed out that suicide in a person who has been diagnosed with a terminal illness is no different than suicide for someone who is not considered terminally ill. Depression, family conflict, feelings of abandonment, hopelessness, etc. lead to suicide - regardless of one's physical condition.

Studies have shown that if pain and depression are adequately treated in a dying person as they would be in a suicidal non-dying person the desire to commit suicide evaporates.

Suicide among the terminally ill, like suicide among the population in general, is a tragic event that cuts short the life of the victim and leaves survivors devastated.

In addition, it is also frequently pointed out that the legislation relating to euthanasia is full of vague and ambiguous terms which allows the provisions to be easily misused. For example, the term "terminally ill" is not subject to a fixed definition. Even within the medical fraternity (let alone the legal community) there is dispute about who is a terminally ill patient and thus the category could cover a very wide range of patients.

Another favourite argument is that of the "slippery slope". The slippery slope argument, in short, is that permitting voluntary euthanasia would over the years lead to a slide down the slippery slope and eventually we would end up permitting even non-voluntary and involuntary euthanasia.

Opponents also argue that permitting physicians to engage in active euthanasia creates intolerable risks of abuse and misuse of the power over life and death. They acknowledge that particular instances of active euthanasia may sometimes be morally justified. However, they maintain that sanctioning the practice of killing would, on balance, cause more harm than benefit.

## Conclusion

A perusal of the arguments that have been summarised above tends to indicate that all the talk about sanctity of life notwithstanding, the opposition to euthanasia breeds from the fear of misuse of the right if it is permitted.

Here it is sought only to argue for the legalisation of voluntary (both active and passive) euthanasia. This is because though there may be some cases of non-voluntary or involuntary euthanasia where one may sympathise with the patient and in which one may agree that letting the patient die was the best possible option, yet it is believed that it would be very difficult to separate such cases from the other cases of non-voluntary or involuntary euthanasia. Thus, the potential of misuse of provisions allowing non-voluntary and involuntary euthanasia is far greater than that of the misuse of provisions seeking to permit voluntary euthanasia.

In the present scheme of criminal law it is not possible to construe the provisions so as to include voluntary euthanasia without including non-voluntary and involuntary euthanasia. Parliament should therefore, by a special legislation, legalise voluntary euthanasia while expressly prohibiting non-voluntary and involuntary euthanasia. Legalising euthanasia would not have any effect on the provisions relating to suicide and abetment thereof as euthanasia and suicide are two completely different acts.

Coming back to the argument that legalising voluntary euthanasia would lead to a misuse of the provisions, there could be a scheme by which such misuse could be minimised. It may be true that in Netherlands the provisions justifying voluntary active euthanasia may have been grossly misused but such misuse was possible because the procedure for investigating the validity of the death begins only after the death has taken place.

So a fairly practical scheme under which the investigation procedure would begin before the death is suggested and it is only after the investigation is complete that the doctor would be allowed to let the patient die.

A quasi-judicial officer be appointed by the appropriate authority under the proposed statute to supervise all cases of euthanasia within a feasible territory. Such officer must be reasonably well versed with the nuances of medical science. Any doctor who feels that his patient's request to die should be fulfilled would report such a case to the said supervising officer. The supervisor would then interview the patient to satisfy himself whether the request is free, voluntary and persistent. The supervisor would also then refer the case to a minimum of two other experienced doctors to get their opinion on the case. If both the doctors so referred feel that the patient is beyond recovery, that there is no alternate treatment available and that death would be a more suitable option for him then the supervisor would inform the patient's relatives about the patient's request and the doctor's opinion. Finally, the supervisor would issue a certificate allowing the doctor to let the patient die. Such certificate would also have to bear the signatures of the two doctors to whom the case was referred and of the legal guardian of the patient who would, after a talk with the patient, certify that the consent of the patient was not obtained by force.

Once such a certificate is obtained then the doctor would be allowed to let the patient die.

Though the procedure outlined above may seem cumbersome, such safeguards are necessary to minimise the chances of misuse of the right of euthanasia.

The only problematic issue that could arise is regarding the requirement that no other alternative to reduce the pain should be available. Problems could arise when it is required to decide what an alternative is. Thus, would a Rs 5 lakh treatment be an alternative for a person who earns Rs 5000 a year? Similarly, would a treatment available only in Delhi be an alternative for a person living in Port Blair and who cannot afford the passage to Delhi, even if he can afford the treatment? Also, would a doctor be held liable if he is ignorant of any new advancement in medical science? These are problematic issues and would require further extensive discussion. But one should not forget that in a country like India where there is tremendous pressure on the available medical facilities, euthanasia is all the more necessary for the maximum utilisation of the limited facilities. Euthanasia could be legalized, but the laws would have to be very stringent. Every case will have to be carefully monitored taking into consideration the point of views of the patient, the relatives and the doctors.

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## Euthanasia: Should it be Lawful or Otherwise?

Shubhabrata Basu

The present case pivots two interrelated constructs, associated with the concept of life, namely (i) the aggregation of systems supporting biological form of life and (ii) perceived collective utility (like societal value) of life. Life, by biological definition, is an active (e.g. metabolism) and reactive (e.g. irritability) phenomena (Koshland, 2002) which is subjected to relative *environmental munificence* for sustenance of its present form. Thus life subsumes adaptability and hence the question of relative munificence. Life here is generic and exists without human interventions. This definition of life is at variance to Cartesian Philosophy (Descartes, 1644) (*Cogito ergo sum*) that puts a premium on activity (e.g. thinking) to determine life and therefore, in turn, emphasizes on and leads to the utilitarian aspects of life. Life for Descartes is specific; it exists with or for a purpose or a utility and hence is prone to human interventions. The present case is unique in the sense that it portrays the confrontation and a possible reconciliation between the biological and the utilitarian aspect of life.

The case describes a heinous crime perpetrated against a nurse, Aruna Ramchandra Shanbaug, which left her in a persistent vegetative state (PVS) for 37 years at King Edward Memorial (KEM) Hospital. Over the years, her blood relatives deserted her but she was taken care of by the inmates of the Hospital. Subsequently a noted social activist Ms. Pinki Virani, filed an original writ to the Supreme Court, seeking Euthanasia or Mercy Killing to end her perceived miserable existence. It may be noted that the appellant was in no way related by blood to the patient, and in all likelihood, would not financially benefit from her appeal. The appeal was contested by the authorities and inmates of KEM hospital who conveyed to the court their emotional attachment to the patient. And every new batch was initiated to caring for her in an effort to institutionally perpetuate mutual sharing of responsibilities and strengthening of support system like workplace security.

The primary decision maker, in this case, the Supreme Court of India, admitted this case on the ground of its originality and novelty. The issues before the Court, stemming out of the case, exceeded the instant requirements. The Court had to deliberate on the fundamental question of fixing the onus of critical decisions for collective utility given (i) an evolving society replete with its moral limitations and (ii) the limitations and the evolving prospects of medical science. In short, who is/are best positioned, legally, to take crucial decisions on behalf of Aruna and is it worth incurring the cost of supporting her given that in future a cure may or may not be developed.

**Table I (Matrix of Euthanasia Cases)**

Active Intervention by the State	<b>Quadrant 1</b> Legally Sanctioned and Practiced in Other Countries	<b>Quadrant 2</b> Execution of infirm Pets and Criminals
Passive Intervention by the State	<b>Quadrant 3</b> Jain Philosophy of Death by Starvation	<b>Quadrant 4</b> The Present Case
	Voluntary Euthanasia	Involuntary Euthanasia

The Supreme Court, citing precedence and with the help of subject experts, disposed the case in favour of the KEM Hospital authorities. The logic behind the judgment can be understood using a 2 x 2 matrix given in Table (1).

Using the matrix with respect to euthanasia, it is apparent that any actions in Quadrant 1 entails well defined set of actions consistent with the law of land. Quadrant 2 is applicable to lesser mortals like infirm pet dogs and horses or even criminals punishable by death and where a lethal instrument is administered to lessen collective burden. Quadrant 3 is sanctioned in some religion like Jainism where the respective society, after prolonged experimentation at the society/community level had identified the societal utility and hence allowed the same. However, with respect to Quadrant 4, scholarship and intelligentsia have not had the prior exposure to determine the accruable cost and benefit at the societal level. The present case falls in this quadrant and hence, to simplify, the opponents of euthanasia, obtained the benefit of doubt from the court, given the question of life and death and possibly the prospect of future cure.

To its credit, the court did attempt to deliberate on the question of life as it exists and the utility that can be derived from it. The court did determine, through the panel of experts, that Aruna is alive biologically. The court also heard that the life, Aruna is currently leading, is at abeyance to the Spartan philosophy of life which stress on vitality. The court also found that Aruna has been deserted by her blood relatives and the petitioner's concern is as much emotional as that of the opponents and who was probably moved by her vegetative state which is at loggerheads with Cartesian form of Humanity. However, the Court probably found a linkage between a vegetative life form and collective utility; Aruna is possibly a living reminder to the human need to support each other collectively, so that incidences of risks and dissonances can be minimized to the utility and benefit of the collective.

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## Euthanasia: Should it be Lawful or Otherwise?

Shaleen Gopal

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For long, euthanasia has been keenly debated on its moral correctness. The debate falls within the philosophical realms of the right to take away life and resonates with other ongoing debates in medical arena such as on stem cell research and abortion. Diverse views prevail. The Supreme Court of India, by way of taking up the euthanasia case of Aruna Shanbaug, has laid down a guiding framework to deal with such cases till legislations are enacted on the same. The deliberations also offer guidelines to policy makers.

Euthanasia could be active or passive. Active euthanasia involves giving painless death to a person through the use of some external means whereas passive euthanasia entails withdrawal of life support mechanisms to a person (hereby referred to as patient). The Supreme Court of India has ruled out active euthanasia as illegal on several previous occasions holding that "right to life is sacred". The Aruna Shanbaug case addressed the issue of passive euthanasia and involved determination of the conditions under which withdrawal of external life support mechanisms could be allowed. Contending that the withdrawal of external life support mechanisms was not illegitimate, the Supreme Court accepted the case for debate.

Two aspects emerged as important in this debate. First one was regarding who could make a petition for grant of permission for euthanasia. Grant of permission for euthanasia could be sought either by the patient or by another person if the former is incapacitated and survives on external life support mechanisms. Very often passive euthanasia involves the latter. Risk of opportunistic behavior and adverse selection becomes pertinent in such cases because intentions of the parties involved in seeking permission for euthanasia are often unknown and difficult to be ascertained ex ante. They may seek some private benefit out of the death of the patient such as inheritance of his/her wealth. Thus it becomes important to rule out any wrongful intent while granting permission for euthanasia. Taking this into consideration, the Supreme Court held that only the next of kin or friend of a patient could move an application for grant of permission for euthanasia. This would ensure that only persons having deep emotional bonding with the patient could move an application for euthanasia. Deep emotional bonding would reduce the likelihood that opportunistic intentions underlie petitioner's application. In the Aruna Shanbaugh case, this meant that the application for grant of euthanasia had to be moved by KEM Hospital, which had taken care of the patient for the last 37 years. Pinky Virani had no locus standi in this matter.

However, next of kin or friend may not always be emotionally attached to the patient. Therefore, the court verdict allowing only the next of kin or friend to file petition for euthanasia may not be able to completely eliminate risks of opportunistic behavior and adverse selection. From this perspective, the second aspect that emerged as important during the court debate becomes pertinent. This was the decision regarding appropriateness of a patient's conditions for allowing passive euthanasia and involved determination of criteria for evaluating patient's condition and of the appropriate authority to collect evidences on the same.

Holding onto the principle that 'right to life is sacred', the court held that it was necessary to ensure that the person who was being considered for euthanasia was not living in the real sense. The court drew upon medical and legal definitions of life to conclude that a patient could be pronounced dead and permitted for euthanasia only when his/her brain was dead. Further to ensure that the condition of Aruna Shanbaug was assessed properly, the Supreme Court constituted a three-member panel of eminent doctors. In doing so, the court established a precedent for procedure to be followed in the evaluation of a patient's condition. Together, the laying down of criteria and procedure for assessment of patient's condition would further help in reducing opportunism in euthanasia cases. Only cases fit for euthanasia would be amenable to grant of permission thereby discouraging unscrupulous persons from petitioning for selfish ends.

In general, Aruna Shanbaug case illustrates an interesting phenomenon: how new governing institutions emerge in society. The questions or problems society engages with change over time due to evolutions such as scientific, cultural, and philosophical. The existing institutions, for example, the social and professional norms, are often not capable of addressing issues emerging during such transitions (Sreenath, 1998). New rules and norms develop to address these issues, with prevalent formal institutional bodies, such as the Supreme Court of India in the case of Aruna Shanbaug, serving as anchors in ensuring that adequate safeguards are incorporated to prevent misuse.

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## Euthanasia: Should it be Lawful or Otherwise?

Saroj Kumar Pani

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The case "Euthanasia: Should it be lawful or otherwise" shows how a society grapples with changes those fall in the intersection of morality and reality of social order. This case provides a just platform to discuss this issue in today's context. It provides an option to highlight how highly acclaimed human values may lead to very different actions and therefore opposite consequences. Given this dichotomy, how does a society try to ensure that the actions fall under the ambit of accepted social norms, and therefore the consequences are moderated and accepted?

Take the case of human empathy. What if a fellow human being's empathy towards a person living in a vegetative state pursues him/her to ascertain that death is better than such a life? It is probably the same empathy that Mahatma Gandhi had towards the calf in pain that forced him to suggest death for the poor suffering animal. Obviously society did not approve that, and we witnessed a small but powerful conflict between individual morality and prevalent social norms. What if the same human empathy and love pursues another human being (or a group) to serve a person for 37 long years tirelessly, uninterrupted, and voluntarily? And with that moral right, he/she does not accept the prospect of intervened death for the sufferer. In absence of opportunistic behaviour both the persons in the above scenarios are acting out of empathy and are clearly not immoral. However, the consequences of their empathy are very opposite. How should the society grapple with these opposites?

For the sake of argument, assume the prospect of opportunistic behaviour<sup>1</sup>. The person in favour of death may be suggesting so because of possible material gain or for reducing personal inconvenience arising out of maintenance. The person(s) against death may be suggesting so because of his/her/their personal attachment and therefore unable to accept the prospect of emotional loss in case of death. Or worst, he/she/they might be doing so to gain social capital which he/she/they can leverage at opportune moment (for example: a hospital might do so for publicity). However unrealistic this prospect may sound; it is possible. In all the above scenario, clearly the patient's interest seems secondary and we may not call this moral. Nevertheless, again the consequences of the opportunistic behaviour are very opposite.

This leads us to the real problem of a society that grapples with the issues so close to morality, human frailty, and the larger context of social order. First, how does society determine a process or establish a system (e.g. law) which not only provide room for human values (such as empathy) to prosper but also reduces the risk of human frailty (such as opportunistic behaviour)? This is a problem of social optimization. Second, the problem of discretion and detection: the system also must recognise the possibility of a seemingly moral action sourced from an immoral reason (for example, ulterior motive leading to argument against death) and vice-versa. Lack of discretion in such cases may lead to social disorder in long run. Third, problem of contextuality and generalization: this is related to the problem of discretion. How does one ensure that the system (or process) considers the context of individual cases so that it remains fault-free and relevant, and at the same time is generalizable so that society considers the system to be impartial, universally applicable, and acceptable?

There are no easy answers to these questions. In fact, there are not many easy answers to the problems of life and society. Precisely that is the reason, why a case should highlight the problems, should enable discussants to appreciate different perspectives, to question them, and not essentially declare a solution to be universal. This case on Euthanasia does that beautifully.

## Note

I All the characters in this case (especially Mrs. Virani, and the KEM staff) have their points. However all the characters and their actions need scrutiny. Even the principle "right to life is sacred" needs scrutiny in this context, especially because the right is not self-determined. According to "mimamsa", one of the six philosophical lineages in India, all words have self-existence and characters of their own. They should be considered independent of the source and context as they might reveal the universal truth. In this light "right to life is sacred" is axiomatic (as considered by the Supreme Court), and if considered to be universal truth then the question of euthanasia does not arise. However, according to "Nyaya" words and their meaning are source and context specific. The same utterance by different persons may have different meanings. In this light "right to life is sacred" may not be axiomatic but may be interpreted in the context of the source. Especially, as the patient in question neither espouses this nor in a position to decipher its consequences.

If we go by "mimamsa" and accept "right to life is sacred" as universal truth, then the definition and consequence of our morality changes. Even a painful, bedridden life is moral and painless death is immoral. Therefore, despite the circumstances, euthanasia is immoral. If we go by "Nyaya" it is very important to know the motive of the person who invokes the axiom "right to life is sacred". Then the prospect of opportunistic behaviour and adverse selection - not only by the individuals but also by the institutions - arise. There may also arise a conflict between the morality of an individual and the morality of a collective, i.e. society (as seen in Mahatma Gandhi and the suffering calf case). Given the conflicting and possible opposite motive, (and also divergent interpretation of morality even though all may be right in their own context), such problems become social optimization problems where equilibrium or social order is more important than the morality itself.

## Author's Profile

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pp. 206, U.S. \$ 22, (p/b), ISBN 978-1-4221-7562-0.****Shiva Kumar Srinivasan**

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What does it take to 'manage' through a downturn? Are there specific managerial techniques that can be identified over and above the range of approaches in general management? Should firms attempt to merely 'survive' during a downturn? Or, is there a way to 'thrive' by planning for the long term? These then are some of the questions that this anthology of essays from HBR sets out to address. The contributors to this volume include faculty and writers from HBS and the editorial team of HBR. There are also representatives of firms such as Novell and strategy consultants from Bain. What all these contributors have in common is a preoccupation with relating managerial techniques, strategic approaches, communication frameworks and psychological interventions that are required to turnaround firms during downturns. The notion of a downturn can be interpreted either as a specific period of inadequate economic activity or more generally as a structural situation in which firms find that growth has 'stalled'. These moments represent, as it were, an existential crisis for the firms which must now rethink their 'theory of the business', since they have probably gone as far as they can go with their original business plan. What should firms do in such macroeconomic scenarios? Should they wait it out? Or should they proactively decide to re-do their business model? What are the situations in which they should wait it out? What are the situations in which they should rethink the business model? In either case, how can they be sure that they are doing the right thing? These then are some of the questions that arise from both a theoretical and a practical point of view. While the case studies of the firms included in this volume attempt to answer these questions, it is not necessarily the case that the insights generated thereby are easy to transfer into a theory of general management. They are probably better understood on a 'case-by-case' basis even though the range of questions that are relevant to thinking through the strategic options available in a downturn are common to almost all the essays featured here.

There are, broadly speaking, three strategic options for a firm during a downturn: stay in the same place, move upward or move downward. Which of these options turns out to be relevant depends on which firm is in contention, which sector of the economy or industry it belongs to and the severity of the downturn in question. Furthermore, firms may not have the strategic autonomy that is required to do what must be done during a downturn, since they are affected by socio-economic variables that are beyond their ability to control. What then are the competitive dynamics at play during downturns? How must firms negotiate the relationship between the internal and external aspects of how they are situated within a given socio-economic context? What are the attributes that are required to pull through these situations? Diane Coutu, a senior editor with HBR, argues that the quality that firms and its leaders need the most is 'resilience', since this is the quality that differentiates the survivors from those who give up or blame circumstances for doing so. Coutu's goal is to demarcate the frame within which resilience can be studied; she argues that three important abilities that resilient individuals have are the willingness to confront difficult situations, find a sense

of meaning and purpose, and improvise when the rules are not clear. She invokes anecdotes, examples and brief caselettes from a range of sources and theories including psychoanalysis to understand how people behave in extreme situations. She concludes by invoking the anthropological notion of 'bricoleur' as an approach that will help to not only formulate strategy but also lead in difficult situations. It is not only possible to manage downturns, argues Darrel Rigby of Bain, but actually move upward by understanding the three phases that must be navigated during a downturn. In order to do so, executives must learn not to panic, but focus instead on their core businesses, keep a lid on costs, hold on to their customers and resist the temptation to diversify. While Rigby's advice is sensible, it is good to close-read the actual examples that he adduces to see how much similarity there is between the firms that he studies and those to which a hypothetical reader belongs in order to avoid the sense of disorientation that comes from not knowing whose advice to take. There are, however, situations when growth stalls to a point that not only can push a firm to a crisis but make its leaders wonder whether growth can be reactivated in the future. Matthew Olson et al. therefore argue that firms must be alert to the symptoms of stalled growth which include the inability to manage innovation, lack of sufficient talent in the firm and a reckless and premature abandonment of the core business. What is required in these situations is an objective 'strategy review' from the point of view of the venture capitalist that can provide feedback on whether or not any of the initiatives generated by the firm are worth funding, and, if so, to what extent. This is an interesting piece of advice that firms should think-through, since strategy reviews are usually done by strategy consultants rather than venture capitalists.

What must firms do if, as a result of these strategy reviews, they decide to attempt a turnaround? Rosabeth Kanter of HBS, who is a leading authority on change management and leadership, argues that it is important to get a handle on the 'psychology of turnarounds'. Kanter sets out the trajectory of decline which produces a host of symptoms ranging from denial, scape-goating, turf battles, learned helplessness and passivity. It also becomes increasingly difficult - if not impossible - to do any sort of collaborative or group/team-based work in such situations, since a sense of mutual suspicion and lack of respect between co-workers produces a relentless sense of despair. How should a leader in a turnaround situation find the social capital and energy needed to communicate the need for change? Kanter invokes caselettes discussing Gilette, the BBC and Invensys to find out what insights can be generated from their attempt to turnaround their operations. She argues that nothing less than the viability of strategic leadership as an approach to managing firms is at stake in such situations. Turnarounds then are an opportunity to understand not only organisational behaviour, but also the role that leaders can play in harnessing their human resources by restructuring the acceptable levels of candor and communication in the firm. A downturn moreover provides the firms with the sense of urgency required to do so. But the key insight here is that it is the excess generated by focusing relentlessly on 'customer service' that will make it possible for the firm to find the energy and social capital that is needed to weather the psychological demands that change will make on the firm. What else can a firm draw upon? Chris Zook of Bain argues that there are three categories of assets that are relevant; they include 'undervalued business platforms, untapped insights into customers and underexploited capabilities'. He studies companies such as Dometic and Novozymes for the insights that they offer. The transition that Novozymes made from making enzymes for use in detergents to 'bioengineered specialty enzymes' by making better use of underutilised capabilities in the firm is a case in point; underutilised capabilities in this instance included a knowledge of 'genetic



and protein engineering' for which there had been no previous commercial application. Transiting between core competencies and capabilities is not the same as diversification, but an attempt to deploy capabilities that are already in place, albeit those whose value remains unknown until a breakthrough actually happens. It is therefore important for firms to understand that identifying core competencies in the 'plural' is more important than a singular notion of core competence, especially if they wish to find the 'next core business'.

While the ability to think and lead strategically and identify core competencies is an important prerequisite to lead during a downturn, it is also important to understand that the cognitive patterns of leaders are dictated by the 'zeitgeist'. Anthony Mayo and Nitin Nohria of HBS therefore argue that the six important variables which determine the context of a given business must be well understood. These six factors include 'the level of government intervention in business, global events, demographics, shifts in social mores, developments in technology and the strength or weakness of the labor movement'. Mayo and Nohria have studied business leaders in great depth, and argue that on the basis of their extensive database, there are three important 'archetypes' of leadership; these include that of the entrepreneur, the manager and the leader. Each of these is important in its own way and the differences between these archetypes can be understood in terms of how they respond to the challenges, needs and demands of the zeitgeist. Not only do these archetypes co-exist in society, but are, in a sense, a recurring pattern that is available in the data sample that they locate in terms of separate decades. The anthology then makes a sudden and abrupt transition to discussing the need to manage cash effectively during a downturn. The contributors to this section include Tom Copeland of Monitor and Eric Schmidt, then CEO, of Novell. Copeland argues that the preoccupation with cost-cutting - as a tool to navigate crises in the contemporary zeitgeist - does not differentiate sufficiently between different types of cost-cutting that is required to increase cash flow. It is therefore important to formalise the processes involved in reviewing budget proposals in firms in order to prevent the duplication of investments, utilise assets more effectively and develop better 'capacity measures' in the firm. And, finally, Schmidt, explains, in an interview, how he led successfully in 'rough times' by focusing relentlessly on managing cash flow, minimising inventory and investments which, in turn, will generate further cash flow. The categories in contention in this anthology include the psychological, strategic and socio-economic contexts involved in 'managing through a downturn', and the financial discipline involved in managing 'cash flows' effectively to keep the business going. The anthology, needless to say, would have gained a little more if the transitions between the different sections were made smoother through editorial comments or the actual sequence in which the essays have been placed in the volume. This, however, is a book that business leaders and consultants will gain a lot from despite the minor blemishes mentioned above; the notion of 'managing through a downturn' is not just an interesting theme in business economics, but has the potential to be an area of research in its own right.

### Author's Profile

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**BOOK REVIEWS****Grit, Guts and Gumption - Driving Change in a State Owned Giant****R. Radha**

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**Rajesh Chakrabarthy (2010). Grit, Guts and Gumption: Driving change in a state owned Giant (New Delhi: Penguin Books India), pp. 256, Rs. 499. ISBN 9780670085002.**

The book under review covers the transformation process undertaken by State Bank of India (SBI), the banking behemoth with 200 years of existence in India. The central theme dealt with in this book is the interventions by an energetic leader to transform SBI from a laidback, complacent bank to an emergent aggressive front-runner.

The book chronicles the transformation process over a period of three years, covering important aspects of the transformation process. The content of the Book is set in 12 Chapters. Chapter 1 begins with the appointment of Mr. O.P. Bhatt as the leader of the Bank. The subsequent chapters narrate the entire gamut of planning and implementation of change management. Chapter 12 aptly titled as "stock taking" highlights the post-transformation position of SBI in 2010.

Chapter one briefly captures the competitive landscape in the post-deregulation period and the apathy of Public Sector Banks (PSBs). SBI like any other Public Sector Undertaking (PSU) was steadily losing its turf as a market leader to ICICI, a vibrant, aggressive, techno-savvy new private sector bank. Mr. O.P. Bhatt was appointed as the CMD of SBI in 2006. Before joining as the CMD of SBI, he had almost three decades of experience working with SBI. Mr. Bhatt was determined to redeem the lost glory and pre-eminent position of SBI as a bank. He strongly believed in the capability of SBI and decided to play a decisive role as a leader in transforming SBI.

Chapter 2 details the brainstorming, introspection, stock taking, planning for transformation, and priority setting activities which were undertaken within the first six months of the leadership of Mr. Bhatt. The author highlights the importance of communication and subsequent buy-in of various cadres for setting the transformation process on move. Walking the talk was palpable from the rapid organizational changes that were happening in SBI. The bank decided to revamp business process, upgrade infrastructure on an urgent basis. Segments related to rural, wholesale banking and treasury were put on high priority in the business agenda. This was followed by activities in global operations and focus on the middle class segment in India.

Three new business groups were formed. A Corporate communication and change department reporting directly to CMD was setup. Priorities were reset, sector-wise business goals were decided and articulated.

Being in Financial Services Industry where customer service quality is the decisive differentiator, SBI had to change the existing (public sector) culture of bureaucracy, and insensitivity to customer needs and business expectations. The frontline employees such as the junior executives, clerical cadre and sub-staff create "the moment truth" when a customer deals with the bank. They are the face of SBI to the customers. As part of the transformation process, SBI planned to bring about attitudinal

changes among these frontline staffs which gradually led to culture change. A herculean task of addressing, sensitizing, creating awareness of external environment and projecting the importance of customer service, to nearly 1,38,000 staff members within 100 days was taken up on a war footing basis. Chapter 3 of the book provides a detailed documentation on the efforts that lead to cultural changes in SBI.

Chapter 4 describes the initiatives taken (by the bank) to bring about changes in human resources to support the transformation process induced business growth. Need to recruit fresh talent in a limited time period necessitated the recruitment drive to become online. Backlogs in staff promotions were cleared. Introducing the system of promotion and transfer among business circles helped the bank to rationalize manpower across the country. In spite of the constraints of a PSU such as the non-existence of Employee Staff Option (ESOP) SBI managed rights issue to Government of India at concessional price and offered employee stock purchase scheme to each member of "SBI Family" at the same concessional rate. Other staff benefits, offered with minor variations to suit employee needs, served as a big motivator. A well thought out HR policy of grooming future leaders, empowering sub-staff etc. was the content of organization-wide change.

Technology adoption is the key to accomplish competitive advantage in banking sector. Chapter 5 on strengthening ICT gives a description of advantages of technology in rolling out new products, and in speeding up the service delivery. Core banking which is the backbone of modern banking was progressing slowly at SBI. The challenges pertaining to inadequate infrastructure, limited skill set of employees, non-alignment of processes with business goals, non-cooperative union and the various hurdles faced by SBI are discussed.

By aggressively pursuing CORE banking platform how SBI could add new products to its basket, exploit benefits of alternate channels like ATM, Internet banking, and mobile banking are documented in Chapters 6 and 7.

To outsmart competition and entice customers, SBI had to revamp its business processes and emerge as an efficient, customer oriented bank. Technology based Business Process Reengineering (BPR) initiatives such as centralization of back office processes, released many branch officials from routine work and allowed them to connect to their customers. Customer banking experience at branches were enhanced by redesigning branches for ambience, providing state of the art facilities, and customer friendly staff. Relationship banking concept was adopted by employing relationship managers to understand and build long-term business relationship with customers. Marketing of bank products were promoted right from the grass-root level staff. De-layering of hierarchy and centralization of loan application processing enabled rapid decision making related to credit and personal loan.

With changed mindset and state of art technology support, SBI set out to reclaim its lost turf and expand into new markets. It was fully prepared to explore new segments and diversify into new businesses. Three Chapters (Chapter 8 to chapter 10) describe the efforts made by SBI to get back corporate clients, expand treasury operations, spreading its wings in international operations, increasing rural penetration and tapping (retail) business potential through the Super Circle of Excellence (SCE) branches.

SBI set up wholesale banking, realizing the need to have a holistic view of the entire financial need of corporate clients. A cross-functional team - client service team approached other corporate to take stock of their entire financial needs and offered solutions to corporate account group (750 Crores) and mid-corporate group (50-500 Crores). Assistant General Manager (AGM) level relationship manager was allotted to each corporate account with a supporting staff of service officers and management trainees. Cross selling and fee based income was actively promoted.

In Global Markets segment Deputy Managing Directors (DMDs) headed the treasury department. Currency trading, forward rates and derivative products like currency options, future and swaps were handled at the international treasury front. Domestic treasury handled money market, government bonds and interest rate future. Treasury products were aggressively marketed to corporate clients by a special marketing team, educating them to de-risk their portfolio by hedging, SBI increased its volume in proprietary trading.

International branches and offices of SBI were hitherto catering to Indian diaspora. Liberalization and globalization threw open greater business opportunity for Indian corporate to go global. SBI decided to follow its clients by offering them trade finance, and providing financial support to their takeover bids and diversification ambitions.

Public sector banks always considered banking in rural areas as a social objective. It was decided to go rural in a big way to exploit the huge potential, trickling down from liberalization moves in the economy. The author describes this move as a proactive one much before the recommendation of financial inclusion. SBI brought about structural changes with a separate vertical for rural banking under a Deputy Managing Director (DMD), adopted multi-channel delivery models, tied up with private corporate to use their outlets, business correspondents and facilitators, technology based smart cards, customized ATMs to suit rural infrastructure facilities as an all out effort to grab rural market opportunity.

Customer and employee perception of PSBs as inferior service providers persisted in spite of the level playing field achieved by PSBs in technology, products, and efficiency, at par with competitors - mainly new private sector banks. SBI harped on a noble idea to imitate private sector banks in all aspects of banking experience to customers in selected branches. Selected branches from metropolitan and large cities were remodeled similar to the competitors, staffed with the best of the talent available to attract high value customers in retail banking. The success of these branches emboldened SBI that they have the capability as a new age universal banker.

Size (of a bank) matters in a globalized environment to wrench big-ticket deals at the global level. SBI started consolidating by merging its subsidiaries one by one enabling it to have a unified big balance sheet size. The synergy, economies of scale and scope, exploited by SBI are also detailed in Chapter 10.

With High Net worth Individual (HNI) customers in its fold the bank wanted to position itself as a financial service provider catering to all segments - rural, poor, small business, rich elite and big corporate. SBI unleashed a huge corporate campaign; "Banker to every Indian" followed by "Banker to this Indian" (who is who of India) and "Banker to These Indians". Communication lines were opened up with media empowering top management team to disseminate information to media about SBI products and future plans.

In Chapter 11, the author discusses the diversification moves undertaken by SBI. New business department created for this purpose focused on new business offerings, in the financial services arena where SBI is yet to venture into, competitors (new private banks) have well established their positions. Financial planning and advisory services (customized to customer profile and risk appetite), online trading, bancassurance, custodial services, merchant acquisitions are the products added to the financial basket making SBI truly a universal Bank.

The author enlists the improvements in the performance of SBI on several fronts, such as deposit, credit, treasury, third party product, fee based income. The impressive performance improvement highlights and justifies the transformation process, without which the book would not have been a complete reading on change management.

The author takes us into a journey of the transformation process at SBI through the twelve chapters. Each chapter gives the background of the issue discussed making the journey of reading very informative. The book is a wakeup call to other sleeping giants (PSBs) who have better reach than new entrants but lagged behind in exploiting their strengths. It describes the nitty-gritty of a major transformation process.

This book is a classic example of change management covering the whole gamut of activities from planning, strategizing, resource allocation to meticulous execution in the context of size, spread, PSU constraints, union resistance and traditional and old-fashioned attitudes and culture. It is different from other turn around stories in the sense that selling "Change Management Project" when SBI is still holding the number 1 position, a proactive move to leapfrog to greater heights.

This book is an excellent example of portrayal of the transformation process by a PSU struggling under the heavy weight of social objectives, bureaucratic and political constraints, yet forced to face the onslaught of fierce competition. Size of SBI in terms of spread, branches and employees posed several challenges. How SBI managed the transformation process extending to nearly three years is well described in a sequential manner- right from the initial conclave to final roll out of core banking, new products and diversification.

This book can be a guide and reference source for executives of organizations, management consultants, academicians, and (management) students on turn around and transformation process. Other PSU change leaders can take a cue from SBI's experience of tight rope walking - be it buy-in of top management team, soliciting union representatives co-operation, motivating rank and file of the organization without any real monetary incentive and on out of turn promotion. For management students, the book can be a case study on change management of an important organization.

### **Author's Profile**

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## Management Science and Practice: MSP-2008

Omkar D. Palsule-Desai

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**Ravichandran, N. (eds.) (2011). Management Science and Practice: MSP-2008. (New Delhi: Allied Publishers Pvt. Ltd.), pp. 280. ISBN 978-81-8424-668-1**

The past decade witnessed renewed emphasis on research and publications from Indian academia. While the landscape available for academic research from both theoretical and applied perspective is vast, providing practice oriented theoretical contributions is particularly essential for managing complex and emerging economies in India. In order to facilitate applied management research in India, the art of adopting scientific tools and techniques available in the management literature, e.g., Operations Research (OR), is particularly required to be streamlined within the framework of the Indian business environment. In this regard, the Ahmedabad Chapter of the Operations Research Society of India (ORSI) had organized the third conference on Management Science and Practice (MSP) in collaboration with the Indian Institute of Management Ahmedabad during March 22-24, 2008. The Ahmedabad Chapter also offers this volume of conference proceedings that emphasizes the society's one of the objectives of promoting practice oriented academic research in the areas of OR and management.

The theme of MSP-2008 is Future of OR. Aligned with the theme, this proceedings volume is compiled based on several invited talks and a set of peer reviewed papers emphasizing outcome-driven applications of tools and techniques of OR. The volume also provides to both practitioners and academia an excellent outlook on prospects for OR in India by establishing linkages between its past and present.

The proceedings volume consists of three sections. In Section 1, N. Ravichandran lays down the foundation for promoting OR in India and outlines related challenges and opportunities available in India. Section 2 presents research articles from some of the eminent personalities invited from industry and academia. Section 3 compiles some of the papers contributed in the main conference. This review of the proceedings volume provides a brief discussion of each section and highlights its contributions.

Section 1 essentially portrays the evolution of OR in India through its origin and accomplishments till date. More importantly, it analyzes the need for integrating OR in nation building and outlines various strategic initiatives to promote, strengthen and enrich the relevance of OR in the Indian context. For example, in view of the India Vision 2020, the author proposes a framework based on business models with special attention given to domestic market, industrial sectors, and social objectives. The framework also provides operating guidelines for diverse issues, such as technology development, policy design, and resource harnessing, etc. To facilitate better implementation of this framework, the author offers a state wise timeline and stage wise OR models that are applicable in achieving the overall vision. The list of the elements of the strategy to revitalize OR as a discipline in the Indian context clearly reflects the extensive experience the author has gained over the years at the interface of practice and academics.

The invited contributions compiled in Section 2 evidently highlight the significance of applied research in the field of management using tools and techniques of OR. The six articles included in this section are exemplary applications of OR methodology in solving complex business issues in areas, such as information technology, finance, health care, oil industry, and disaster management, etc. For example, B. N. Dutta demonstrates how the cost of tax collection has decreased and how the service to taxpayers has increased by adopting information technology based on data mining techniques in the process and systems of Income Tax Department. Similarly, S. S. Soni highlights excellence achieved in supply chain management at the Indian Oil Corporation (IOC) through ERP and an integrated multi-nodal optimization model. Based on his experiences at IOC, the author also provides a framework for ERP adoption in the industry. In another article of his, N. Ravichandran assesses opportunities for researchers in OR, medical professionals, policy makers and health care providers to enhance quality of health care in India in terms of cost, access and delivery. In particular, the author proposes two separate approaches in this analysis: (i) application oriented approach focusing on value chain and activities involved, and (ii) tools and techniques oriented approach. In another case from the service industry, P. Balasubramanian offers an optimization perspective to customer acquisition and sales facilitation processes for project services firms. Finally, on the backdrop of natural disasters such as floods of 2006 in Surat City, Gujarat, D. Mavalankar and A. K. Srivastava propose a framework for application of OR techniques to improve dam management to prevent such floods. In view of the need for better management of social and infrastructural growth in sync with overall growth of the Indian economy, the contribution of this section in terms of providing opportunities for researchers and practitioners of OR enhances significantly.

Section 3 compiles 16 papers selected out of total 83 papers presented during the main conference. Clearly, the paper selection has been thorough and meticulous as these papers provide diversity in business contexts, research issues, research methodologies and methods, and contribution to the literature. For example, the selected papers cover industries, such as finance, small and medium scale manufacturing, automobile, service, defense, carbon trading, and printing and packaging, etc. The research issues addressed are also varied, e.g., IT implementation, facility layout, revenue management, risk mitigation, forecasting, and product lifecycle management, etc. These papers particularly do not focus on a single field of research, such as operations, finance, marketing, policy design, and strategic management, etc.; rather most of the papers are positioned at the interface of two or more of these fields. Moreover, research methodologies adopted are also diverse. For example, qualitative, quantitative, analytical, case based, and survey based research, etc. The research methods assumed by the contributing researchers are varied too. To mention a few, optimization, linear and nonlinear programming, case study, time series analysis, and simulation, etc. While these selected papers demonstrate wide scope and variety in the application of OR tools and techniques, the utility of this proceedings volume enhances due to the implementation perspective provided by each paper in the respective business scenario under consideration.

Despite resource limitations, this proceedings volume does an excellent job in providing an overall perspective on OR in practice in India. In my opinion, the contribution of this volume to academic literature would have enhanced significantly, had a brief summary of each of the invited presentations and tutorials been included in the proceedings by which the research community could have been exposed to the theoretical understanding of management research. During the main conference,

there were 13 invited presentations by renowned researchers and practitioners from the field of OR. These presentations focused on topics such as queueing theory, data mining, analytics in supply chain management, and IT implementation, etc. Nevertheless, the efforts required in publishing this proceedings volume and its contribution in the form of identification of the scope for OR in management research in India are commendable.

### **Author's Profile**

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## The Maruti Story: How A Public Sector Company Put India on Wheels

Wallace Jacob

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**Bhargava R.C. and Seetha (2010). The Maruti Story: How A Public Sector Company Put India on Wheels, Collins Business An Imprint of HarperCollins Publishers, Noida. pp. xxi + 383, Rs. 499.**

R. C. Bhargava and Seetha have written a superlative book which explores and explains practical management and the governance system at Public Sector Units and a few other private organizations as well. Several incidents have been mentioned in the book which help the reader to appreciate Frederick Winslow Taylor's as well as Henri Fayol's principles, gain a deeper understanding of the ten managerial roles identified by Henry Mintzberg besides understanding some management, technical jargon, government policies, procedures and decisions.

The first chapter explains the vision and mission of the Late Mr. Sanjay Gandhi who worked as an apprentice with the car manufacturing Rolls-Royce Motors for three years and came back to India with the idea of manufacturing a people's car. The authors have been able to bring out in a very succinct way how Sanjay Gandhi's idea was both valid and impossible at that point of time. The chapter also covers little known facts about G. Mackenzie & Co., General Motors, The Indian Automobile Industry and the three companies - Hindustan Motors (Ambassador), Premier Automobiles (Premier Padmini) and Standard Motors (Standard Herald) - manufacturing cars at that point of time. The chapter highlights the policies of the Government and how those policies affected the industry and the reasons for poor quality. It also explains the awakening of the government and the steps taken towards making the country self-sufficient in the field of automobiles. The chapter also traces the incorporation of Maruti Motors Limited (on 04 June 1971), the formation of Maruti Heavy Vehicles company, the effect (detrimental) of change of Government in the general elections of January 1977 on Maruti Motors Limited and Maruti Heavy Vehicles, and the incorporation of Maruti Udyog Limited (on 24 Feb 1981) as a 100 percent government-owned company - a project which went on to revolutionize the Indian automobile industry. (Maruti ceased to be a PSU in 1992 because Suzuki Motor Corporation was allowed to increase its equity from 40 percent to 50 percent).

Although Sanjay Gandhi left for his permanent abode on June 23 1980, but his obsession with making a people's car continues to propel the passenger car manufacturing industry. Soon after Sanjay Gandhi's sad demise Mrs. Indira Gandhi called upon Arun Nehru, asked him to take stock of the situation and check whether it was possible to revive Maruti. Arun Nehru felt that the project could be revived but it would require a joint venture with a foreign technology giver and a minimum production volume of 100,000 cars a year was essential for the viability of the project. Mrs. Gandhi got visionaries like Mr. Sumant Moolgaokar (legendary chairman of TELCO), Mr. Yashwant Sinha (who became the finance minister of our country thrice), Mr. D. R. Mehta (who went on to head the Securities and Exchange Board of India), Mr. Krishnamurthy (who headed the behemoth by the name of BHEL) and several other such stalwarts to manage Mauti Udyog Limited. Incidentally Moolgaokar felt that small and compact cars would be unsafe and unsuitable for our country and insisted on the development of light commercial vehicles. He even went on the extent of saying, at one of the board meetings, "Maruti should not manufacture cars". Moolgaokar went on to submit his resignaton

which was accepted. And the government went on with its plans and eventually created an icon - the Maruti 800.

The second chapter provides deep insights into how the management at Maruti commissioned a market survey to ascertain what the customers wanted, and formed a team to visit car manufacturers in Europe and Japan to explore options. The team visited Fiat headquarters in Italy, Peugeot and Renault in France, Volkswagen plant in Wolfsburg, Daimler-Benz in Stuttgart, MAN AG in Germany. In Japan the team met representatives from Toyota, Honda, Suzuki Motor Corporation (SMC), Mitsubishi. Finally by the grace of the Divine, SMC evinced interest in the project. Incidentally, SMC was not in the picture as a potential partner due to a slight oversight - the slight oversight provides great and relishing food for thought. In order to win the trust of the potential car owners, Suzuki sent a few cars of different models for an exhaustive testing in our country. The cars were driven from Kolkata to Delhi and then to Shimla, Mumbai and other places covering more than 10,000 kms over different and treacherous terrains. The test drives resulted in several modifications such as higher ground clearance, stronger horns, more robust shock absorbers, etc. in the cars to suit the driving conditions in our country.

The third chapter vividly brings out the SMC system of project management, where all the constituent shops of a car factory are not constructed simultaneously. In the case of Maruti, the last stage, i.e. the car assembly and testing line was set up first. It was then followed by the setting up of paint and weld shops. The chapter contains a comprehensive discussion pertaining to the advantages of such a system. The chapter also focuses on the recruitment methodology followed at Maruti, which is very important in a country where many job aspirants may not have the required aptitude and/or qualifications but certainly have very powerful ministerial approaches. Thankfully, Maruti can boast of workers from all parts of the country. Maruti also has the honour of being a profitable company from the very first year of its incorporation. Normally a car manufacturing unit might take an estimated three to four years for reaching the break-even point.

At a press conference in Kolkata some contemptuous journalists had remarked that the Maruti 800 car would disappear in the city's potholes during the rains. Ironically, at that point of time Maruti 800 was the only car that kept running, even when the streets were flooded. The third chapter explains how the company could manage such a feat. The Maruti company is blessed with a culture - the culture of not assuming that a problem had no solution. But initially it was difficult to accept such reasoning. The Japanese did not want even a speck of dust on the shop floor. For the workers of our country not having dust at the workplace; that to at a place like Gurgaon, was next to impossible. But there was a solution to this problem as well! The Suzuki office does not have air-conditioning because they have a belief that air-conditioning is not good for health. In a country like ours, it is difficult to imagine white-collar and red-collar employees enjoying work in sweltering heat. At one point Suzuki argued that robots were not required in a car manufacturing unit because labour in India was cheap. Nonetheless Maruti wanted to adopt the modern concepts of production technology and Maruti was able to convince Suzuki of the feasibility of using robots. The fourth chapter examines the company's experiences with Gypsy - a four-wheel drive vehicle - which was once heavily used by the Defence forces, paramilitary forces and the field departments of the Central and the State governments. The chapter also focusses on the measures taken by the Maruti company in exporting their cars to East Europe, West Europe and thereafter to almost all the other continents except North America.

In a nutshell the book throws light on labour problems, redtapism, role of Planning Commission and Public Investment Board, problems due to outdated technology, the role of market surveys, marketing strategies, advertising, achieving cost cutting, the state of the economy of our country. The superlative tome also examines how politics and politicians might govern (or foil the efforts to govern) a company, the Japanese way of doing things, the effect of speed of decision making, risks associated with a project, meeting deadlines, installation of capital equipment, the working of the assembly line, the general operation sequence of car manufacturing, worker selection policies, generating power and meeting power requirements in a country suffering from acute power shortages and power cuts. It covers aspects such as meeting working capital requirements, employee training, problems which may occur during sea shipment, the power and utility of roadshows, homologating (testing to see if the vehicles conform to the sundry local regulations and then certifying for sales), customer education (the high roof version of the Maruti van had a tendency of overturning if the corners were taken at high speeds due to its higher centre of gravity), customer satisfaction, product positioning, research and development, government's decision to delicense car production in 1994, union strikes, vendor selection, indigenization, quality control, reducing absenteeism, job rotation, quality circles, share pricing, and successor-planning. The beauty of the book is that it makes situations come alive. It also has photographs covering a few of the major milestones of Maruti's journey.

Maruti company has been special to India in several ways. Workers are required to reach the plant ten to fifteen minutes before their time begins and perform the mandatory physical exercises. There are two seven-and-half-minute tea breaks during a shift, workers are also given an attendance bonus, there is a common canteen for all, regardless of rank, the food, plates and cutlery are also the same for all. The company also has common toilets for the officers as well as the workers, a system of open offices, all employees are entitled to similar medical facilities, and there is a system of continuous training of workers. The company also devised novel housing scheme for the workers due to which twenty-five year old workers were able to have their own flats. Maruti also established Maruti Authorized service stations where genuine spare parts were made available to customers at reasonable prices. In a way the Maruti 800 car was an embodiment of a special type of freedom for women, because, women found it easier to drive the Maruti 800 car themselves, compared to the Ambassador and the Padmini.

The book brings out how the Public Sector Enterprises are bound in the shackles of political dominion. In a way it also suggests certain reforms which if brought about can propel our country at least a few years ahead of other giants. The book is indeed an eye-opener, it provides a 360° view of the working of several organizations. All the chapters contain gems and pearls which will undoubtedly enrich the reader. The book is definitely a collector's item.

### **Author's Profile**

**Wallace Jacob** is an M. Phil. in Management. He is presently working as a Senior Assistant Professor at Tolani Maritime Institute, Pune. He teaches Principles of Management and Project Management. His book reviews have been published in MDI's journal -Vision A Journal of Business Perspective. He has also presented a few papers in various conferences.

## Designed to win: Strategies for Building a Thriving Global Business

P. K. Das

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**Hiroaki Yoshihara & Marry Pat McCarthy (2006). Designed to win: Strategies for building a thriving global business (New Delhi: Tata McGraw-Hill Publishing Co. Ltd.), pp. 274, Rs. 399. ISBN 0-07-061897-6.**

Hiroaki Yoshihara and Marry Pat McCarthy, the authors for the book tried to analyze the complexities of global business and came out with recommendations those would navigate companies to success. The advisors from the global consultancy giant, KPMG, interviewed CEO, CFO and Presidents from BMW, Caterpillar, Intel capital Matsushita Electric and Toyota motors to gain necessary insight. In the global arena, operation of business is changing along with the modes of operation within it. Consistent quality to meet multiplicity of customer needs calls for discipline amid chaos. When we go back to early roots of globalization, the burgeoning military and industrial infrastructure off Western countries added to their global influence. Western principles of democracy, representative government, free speech and free trade continued to spread. The beginning of internet uses from early 1990s, enabled unprecedented productivity and collaboration which rendered national focus inefficient. It also articulated the controversy over modern day globalization, global competitiveness and acceptance of broader leadership role.

Formula for global competitiveness although rely on trade liberalization and increased flow of goods, services, capital and foreign direct investment; according to the authors, is not a uniform solution. The stories of China and India were in contrast to the recommendations of the IMF and the World Bank. But they do better than the early adopters of liberalization like Vietnam, Taiwan and South Korea. It might be because liberalization's role as a catalyst in the early stages of economic expansion was in doubt. According to authors, dependence on commodity exports, less manufacturing value addition, higher tariff protection from established economies and importantly, provisions that perpetuate less than equal playing field would add to the financial and social imbalances. Those would affect perspectives of peace and stability in the third world. C.K.Prahalad's "Bottom of the pyramid" though talks of enabling poor to gain access to power by transforming products and business practices through innovation; the authors expressed doubt on it. The historical hegemony by the European and American businesses was slowly being challenged. Multinationals might have hard time if they failed to keep foothold in newly emerging markets. The traditional competitive model would undergo radical transformation.

The challenges for the global CEO would be:

- To visualize the external and internal changes,
- Talent acquisition and maintaining productive relationships,
- Integrating corporate culture and proper strategy execution.

The authors recommended new equations for success. Those would be: delivering right product at right time, at right place and for right price.

Fundamental characteristics for comparative advantage would be:

- size and scale, preparedness and quick response to change through out of box thinking,
- Inward focus, performance meritocracy, and removal of internal boundaries,
- Fostering innovation through market knowledge, and
- Disciplined execution with acquired success.

The straight path for complex times would be to recruit the best and the brightest. Inducting growth culture, notion of addition for employee development, and homely atmosphere would create stakeholders value. The authors suggested for creating value through reliance on operational core and lean business model. Speed and responsiveness, financial edge, and compliance to set norms along with accuracy, reliability and productivity would take care of operational risk.

The corporate ecosystem would play an important role in the era of tightly woven supply chain. The authors assert that the business community would need to be deft and responsive. The agility of small players, just-in-time assembling and decisions at right time would put the things straight for them. Complexity being the chief bottleneck to supply chain optimization, it would be necessary to simplify the business through core offerings, streamlined costs, and focus on primary brands. Focused factory approach would work well for serving multiple markets around the world. Rationalization of manufacturing and out-sourcing distribution elsewhere around the world would help asset utilization. Adopting Triple 'A' (agility, adaptability and alignment) could create defensive and enduring competitive position.

The book argued that capital scarcity, volatile M&A market, and economic climate are exerting pressure on global business leaders to revitalize existing operations. Out-sourcing path is taken to save up to 50% in operational expenses. Supply chain leverage, customized products and stringent timelines would not allow opening for the competitors to exploit. In the globalized business, brands and trademarks would enjoy high importance. The book recommends that the companies would go beyond advertising to find investment returns. Common core values, shared family identity, and employees' genuine belief would instill core competence. Expanding at a measured pace, maintaining clear oversight, and consistency would be useful globally. What is more, learning faster than the competition without being the first to the market would be more beneficial. A clear path for increasing cash flow and guarding against unwanted exposure along with continual innovation would be considered a handiwork of exceptional leadership. Regular customer feedback, industry analyses, bench-marking, and performance measurement would drive optimal value. A series of small and sustainable steps to test the waters before being involved more directly would be useful before global expansion. Businesses like pharmaceuticals and telecommunication should be close to home for better synergy.

Authors suggest a self-sufficient model to manufacture and sell in a given region with links to shared services. Strategy on high-efficient global networks and cost and quality metrics would guide decision making. For optimizing value across enterprise hybrid, importance would be given to intangibles. Better reporting, separating intangibles to discrete categories would ensure clear understanding. An attempt may also be made to leverage the intangible for better income. The intellectual property

(IP) would improve the new business model. According to authors licenses, joint ventures, alliances, and securitization would shine with the leveraging of IP.

The book suggests that return to the key metrics like economic and share holders' profit would be helpful. Adherence to ethical, operative and regulatory standards would add to the reputation. A global business needs to prepare for geo-political volatility, rising interest rates in the developed world and their trade imbalance. Risk tolerance capacity, and effective scenario planning would set the process right. Commercial diplomacy of local economic progress, cautious steps in every sphere of business dealing, home work before every move and finding a common ground would help. Team building, understanding sensitive issues of cultural deal making, and subtle understanding of government intervention would set the ball moving in the right direction.

A gentle command, grooming future leaders, and cultivating people through competency mapping would be the steps for erecting global empire. Yoshihara and McCarthy made a reasonable attempt to bring forth the issues that would help business leaders to win in the global arena. Their advice on sensitivity, customer benefit, advancing the interest of all involved and building trusted relationship across the border would be some of the soft characteristics in the hard-nosed world. Those would be some of the human skills to be successful in any sphere of life. The book should prove to be a useful read for those who look for a global business career.

### Author's Profile

**Prafulla Kumar Das** is a professor of marketing at Regional College of Management, Bhubaneswar. He is an accredited management teacher and a life member of AIMA. He submitted his D.Litt. thesis to the Utkal University on 1st November, 2008. He has got sixteen publications to his credit, two are accepted for publication and four are under review in reputed national and international journals. His case study "Will the market leader be the leader of tomorrow?" won the 2nd Prize at the AIMS Educational Convention, 2009 at ISB, Hyderabad.

## Corporate Chanakya: Successful Management The Chanakya Ways

Anupama Sharma

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**Pillai, Radhakrishnan (2010). Corporate Chanakya: Successful Management The Chanakya Ways, Jaico Publishing House. pp. 340, Rs. 275; ISBN 13-9788184951332.**

"Corporate Chanakya", I found this title very fascinating and got curious to find out how Chanakya and his lessons relate with the present era corporate world. The title is interesting for the management students and practitioners who want to see the Management ways from a different dimensions and its real life applicability.

This book is written by a well known author Mr. Radhakrishnan Pillai fondly known as CHANAKYA Pillai. Educated in the field of management and qualified as an international management consultant, he later turned to discover management from Indian roots and proceeded to do Master in Sanskrit and PhD. He started a company Atma Darshan in field of spiritual tourism and has over 17 years of industry experience. He is the recipient of Sardar Patel International award 09 for his research in Kautilya's Arthashastra and spreading Chanakya's teachings. He is well acclaimed at bringing the learnings of Chanakya and relating it to the modern corporate culture and business dynamics.

This is a rich book about Chanakya, also known as Vishnugupta and Kautilya. He was the leadership guru par excellence, who lived in 3rd Century BC. His book, Kautilya's Arthashastra has 6000 sutras which have been classified into 15 books, 150 chapters and 180 topics by Chanakya himself. In "Corporate Chanakya" the author tries to decode the secret behind the success for leaders of the corporate world.

The book is divided into 3 sections of Leadership, Management and Training with 175 short chapters. It includes guidelines on various topics like -conducting effective meetings, managing time and employees, and dealing with day to day workplace dilemmas, tough decision making, responsibilities and powers of a leader. The book tries to bring back ancient Indian management wisdom in a modern format. The book picks up teachings from the legendary political thinker 'Chanakya' and describes how practitioners should apply them in the contemporary workplace setup. The book talks about a variety of topics like how to prepare for meetings, how to deal with one's boss, how to save a job, which are all relevant in today's corporate life.

The author suggests leaders to work on both hearts and minds of people. The chapter on leadership do's and don'ts sensitizes us to bring improvements in our present common leadership styles. Each chapter in this book helps to reflect on our real experience and how to make them productive and better in future.

Apart from showing the relevance of the Chanakya's teachings and strategies to the modern world corporate, book also explains tips for how to achieve those strategies. So in brief the book not only justifies the ancient-modern connect but also explains how to accomplish the end result cited in respective 'sutra' with modern approach.

Further the author attempts to correlate various verses from Arthashastra with modern management by following Part-Chapter-Subheading structure. Author tried to relate the quotes from Arthashastra to the subheadings. For example - Chanakya (1.13.16-17) says [The Leader/King] should favor those contented, with additional wealth and honor. He should propitiate with gifts and conciliation those, who are discontented, in order to make them contented. On which Pillai explains (Management - Employees - Stopping Attrition): 'Create your own culture: break all the rules, let your organization be the one where everyone feels proud to work', followed by tips to stop attrition.

While western way of Management has been the daily guide book for management professionals, Radhakrishna Pillai provides new fodder for thought in bringing the change in eastern way. Driven by his dedication to the Chinmaya Mission, he seeks to present Chanakya as an expert on modern management. The author has made enough efforts in meticulously selecting from the 6000 sutras and thereby giving readers an opportunity to understand Chanakya-niti in most practical and relevant way.

The book tries enough to answer the question 'Do ancient Indian principles of management and spirituality for the contemporary corporate scenario work?' in an affirmative way. This book is actually trying to provide solutions for our modern-day management problems with our own tried and tested ancient methods.

Although at some places where example is not cited or real situation is not explained to justify the verse, it merely sounds like an interpretation or extended translation of that verse by the author. Putting more practical examples may improve the authenticity of the fit, that verse/teaching brings to the present age corporate format. Otherwise overall, from the chairman to a management trainee of any company each one can understand these profound ideas presented in a simple format. They have been written in a very lucid manner which each of us can practice in our daily life.

## Author's Profile

**Anupama Sharma** is a doctoral student in the OB&HRM area at IIM Indore. She has done her Masters in Computer Applications from Banasthali University, Jaipur and has two years of experience as a Software Engineer in Aricent, Gurgaon. She likes reading, photography, playing Table-Tennis in her leisure time.



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- Have a clear statement of importance; why the paper was written and what it contributes to the body of knowledge.
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- The manuscript should follow British English spellings.
- As a guide, articles should not be more than 6000 words in length.
- The Author(s) Profile should be approximately of 100 words and should include the name and professional biography.
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