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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

The editorial team is pleased to place in the hands of the academic and practicing community the fourth issue of second volume of Indore Management Journal (IMJ). For the journal it is an important milestone. For IIM Indore academic community it is an occasion to feel proud and celebrate.

As in the past, this issue carries the usual mix of viewpoint, perspectives, management case, scholarly articles and book reviews.

We are indeed fortunate to carry an edited version of the speech delivered to our Executive PGP participants in Mumbai by Mr. Deepak Parekh on the opportunities and constraints in our country and the role an individual can play in the emerging context.

The second contribution on view point carries a conversation with Mr. Roongta on his experiences in managing Steel Authority of India (SAIL) as a CEO.

The management case is on a revolutionary concept of redefining the vegetable and fruit supply chain impacting the marginalized farmers of one of the largest states of our country. As in the past we carry six different analyses on this case.

R. Gopalakrishnan of Tata Sons shares his perspectives on innovation in the context of Tata group of companies in the section on Perspectives.

Five book reviews on a wide range of topics is included in our Book Review section.

We are sure as in the past; this issue of IMJ provides an interesting reading to the practicing community as well as to the academicians.

Before we conclude, we would like to place on record our sincere thanks to the contributors, authors and book reviewers and the reviewers for their continued support to IMJ.

The editorial team has ambitious plan to improve the visibility, content, focus and relevance of IMJ beginning the third volume. We look forward to your continued co-operation and support.

Editorial Team

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India and You: Opportunities and Constraints

Deepak Parekh

Mr. Deepak Parekh Chairman of Housing Development Finance Corporation Limited (HDFC Ltd) addressed the EPGP participants of IIM Indore in May 2010 in Mumbai. In his presentation, he covered a range of issues related to the potential pre-eminence role of India and the changes that are happening in India. Indore Management Journal is pleased to bring an edited version of his presentation to the wider audience for their reading and reflection.

To my memory, India has never been in such a strong position ever before. There would have been many times that we were about to take off but we did not take off. Every time there is a transition and India is about to take off, something happens internally or something falls through, but this time looking at the weakening world economic condition, I think that we are in an extremely strong position. Every international company, however large or small, has India on its radar. No international company can afford to ignore or avoid India any longer. How to generate wealth in India, how to invest in India, how to use India's services, how to import from India, how to export to India, are some of the areas of interest for these companies. We are in a very privileged position.

India is the second fastest growing economy in the world after China and it will continue to be so in foreseeable future. One of the features that distinguishes us from China, and I guess it is a commonly known fact, is that we have a domestic consumption driven economy, unlike an export driven economy in China. When I was of your age, consumption was a 'bad word'. Today, consumption is not a bad word. The Indian economy is booming and is insulated from global crises because of the large domestic market and increasing consumerism. If you look at the Asian Financial crisis which happened in Thailand, Malaysia, and Singapore, India to a large extent remained immune to it. The dot-com bubble was another such crisis in the list. We were all worried that the Information Technology industry would collapse after the dot-com bubble, but India stood firm and escaped not only the dot-com bubble but also the recent subprime crisis spread across the globe. The global financial crisis had some impact on India as we are not totally insulated, but still the impact on us has been minimal which is the reason why our recovery from Global financial crisis has been faster.

During the last decade, GDP growth was phenomenal. The growth rate for India was 9% for three consecutive years. Though there was a decline in the GDP growth rate following the global financial crisis, India bounced back with a GDP growth rate of about 8.5%.

The shift in composition of GDP has been significant over the years. Service industry constitutes about 65% of the GDP. Services include IT and ITES, banking, insurance, telecom, domestic airlines, travel and tourism. While agriculture growth has been erratic, manufacturing sector has always remained the same. What bothers the policy makers is that about 70% of our population depends directly or indirectly on farm labour, farm production and is from rural India. Given that 70% of the population depends on agriculture, it contributes only 17% to the GDP. Though the data may be skewed as everyone in rural India is not involved in agriculture, still 70% of the population contributing to 17% of GDP is not desirable. Something is wrong in the agriculture sector, something is wrong with farm productivity.

In the last 6 months, food inflation was around 18-19%, but the farmers are not getting remunerative prices and the consumers are paying too high a price. The leakage is really in the distribution system - from the farm gate to the food plate, the middlemen, transportation and warehousing. A lot needs to be

done on the agriculture side; it is one of our real challenges if we want to grow. The other thing that is impacting the food shortage is the National Rural Employment Guarantee Scheme (NREGS). The Scheme guarantees at least 100 days employment to the people living in rural areas and willing to do unskilled work with a wage rate of Rs. 100/- per day. Food consumption has increased significantly of which is contributed by schemes such as NREGS. On the other hand, the food production has remained more or less stagnant during the last couple of years. So we have to address this issue. We perhaps need another Green Revolution. We need to invest in that.

Rural India is a huge opportunity. Many companies are looking at how to sell goods in rural India. It took 60 years for India to grow to a US$ 1 trillion economy; the next trillion will come in 7 years. So in 2007, we became a trillion dollar economy, 2014 we will become a two trillion dollar economy, in 2016 the next trillion will come, so the best years in India are yet to come and all of you will be the beneficiaries.

There are certain challenges which we have to meet. For instance, let me talk about the issues of the growing middle class. Currently, 250 million constitute India's middle class, they say by 2020, the number will go up to 800 million. This 800 million-consumer class having some income in their wallets, having employment, having money to spend, will boost economic growth, but with that comes a threat of urbanization. Today, it is estimated approximately 300 million people live in urban India and in 10 years from now, this will be 600 million. The urban population in India will be a problem. Where will they live, where will they work, how will they commute, what will be their transport systems - where are the new schemes for India's development? China is developing 900 new cities, and more are under construction. China this year is going to spend US$ 90 million on railways to improve connectivity, whereas, India plans to spend US$ 2 million on railways. If China is spending 6 to 10 times of what we spend in every sector, the gap will increase. We have to get our act together - whether it is roads or railways, there is a need for huge investments in the infrastructure sector.

There are a number of successes also. The telecom revolution was a great success. Teledensity in urban India is over 100%. The private sector is now looking at the rural market on how to increase the revenue by additional services, so I think telecom is a real success story and it happened because the government allowed the private sector to invest in telecom. On the other hand, the public sector companies are not performing at their potential. For example, take the case of BSNL. BSNL has 3.5 lakh employees and it has 95% of landline telephones in India. It is the largest public sector player, but it is going the Air India way because they have not kept up with technology, they have not done any equipment order, the management is still slow, unions run the company rather than managers. Compare this with the private sector. The private sector telecom companies have grown rapidly (although they are now slowing down because of increased competition and consolidation has not yet happened in the sector).

In 1991, I remember we had a reserve of US$ 1 billion that was just enough for 14 days of imports. Today, we have little less than US$ 300 billion. FDI is increasing significantly, FII stakes are increasing. IT industry has evolved. Within a year IT and ITES size would be US$ 100 billion of which, 75% is foreign and 25% is domestic revenues. IT and ITES employs 2.2 million people and for every IT employee there are 4 new jobs created because of administration, logistics, housing, canteens etc. There is a huge incentive in whatever you look at. What stance the US government will take with outsourcing is a question mark. Will they stop outsourcing, will they put a tax on outsourcing, so again that is a big concern that we have. But outsourcing so far has given us huge amount of revenues. Outsourcing and NRI advances are sustaining India so far and NRI advances are US$ 40 to 50 billion. Earlier much of it was coming through illegal channels, unofficial channels; now 99% comes through the official channels.

India's financial sector is very well regulated. We have a very cautious approach, even now if you take the European countries; Indian banks' exposure to

Spain, Italy, Greece, and Portugal is almost non-existent. Our export to these five countries put together is less than 4%, so we are not that impacted. It is the attitude of foreign investors because they are really interested in these countries and if their money start depreciating and disappearing, then the behavior of foreign investments takes a hit and so we need to bear that in our mind. They say that there is a unique reason why some of the countries have escaped the subprime crisis like India, Australia, South Africa and Canada. Now what have these four countries got in common that they escaped the subprime crisis. The common thing in all the four countries is that the foreign banks do not constitute more than 10% of the respective country's banking business and so foreign banks do not run the national economy or the national banking sector. In a recent visit to India, the Canadian Governor said that they are so close to United States, but they have never allowed all the foreign banks put together to contribute more than 10% of the Canadian banking sector or 10% of Canadian business. We have developed local banks. They may not be known internationally, but we have a strong domestic banking system. I think in India probably all foreign banks put together constitute 4-5% of our banking sector. So that is another reason which has prevented us from going bust.

Now some of the issues and concerns which we all are aware of include agriculture, infrastructure and inflation. You must have seen a number of debates on growth versus inflation, should we go for growth or should we contain inflation as there is always a thin line of balance between growth and inflation. The Reserve Bank of India always wants to have inflation under control. The finance ministry, the government of India, also wants to control inflation. The rise of food inflation was predominantly due to inefficient functioning of Food Corporation of India (FCI). Not many of us know about it, but it is one of the largest public sector companies. It has a monopoly on warehousing. No one knows about the food stocks it actually has. It is solely responsible for the distribution of food from their warehouses to different parts of the country. How much food is there, is that food edible, how the food grains are stored, how the transportation happens, are the food grains transported on time and so on are some of the concerns. There is a pressing need to change or at least reform the way FCI operates. Besides food inflation, logistics, freight costs, raw material costs are also going up.

Another concern is fiscal deficit. Somehow RBI feels that part of the problem is large fiscal deficits. I think RBI is going to be extremely cautious and may be even more cautious than necessary to contain inflation. They have started an increasing interest rate which is detrimental to every company. The era of soft interest rates or low interest rates is over. Inflation in developing economies where so many people live below the poverty line is a big concern, especially when the government is looking at inclusive growth.

Fiscal deficits are worrisome. If you have 8-9% growth, (my personal view is that) you can easily live with 4-6% fiscal deficit. You cannot live with a high fiscal deficit, if the GDP growth is low. See the bonanza that the government received with 3G licenses. The Finance Minister in the Union Budget 2010-11 set an ambitious target of generating Rs. 36,000 crores from the auction of 3G spectrum licenses and they got more than double the amount. Last year the oil subsidy was Rs. 1 lakh crore. This year, oil prices have come down in the last 2-3 months. So there is a fair amount of cushion and now the government has to ensure that the fiscal deficit does not hit the roof.

However fiscal deficit and inflation are always going to haunt a developing country like ours where we have a large number of people living below the poverty line. So fiscal deficit and inflation are of concern, agriculture is concern. High dependency on oil is a negative thing.

Almost 75% of our oil requirement is imported. Now I am not willing to believe why Yemen which is close to India has huge amounts of oil and there is not enough amount of oil in India. No big foreign oil company has a sizable presence in oil exploration in India. BP is one of the largest European companies that is here in lubricants and solar power, but not in

oil exploration. Exxon Mobile does not have a presence in India, one of the world's largest companies. They don't want to come. Shell has a small presence in Gujarat and Rajasthan, but nothing much to talk about, but these are globally giant companies. When oil prices go high, our import becomes US$ 100 billion, it is huge because of the rising crude prices and 75% of it is imported and is increasing because our domestic production is not much. Now they say we have found lot of natural gas, but how to evacuate gas and to build the pipeline needs serious attention.

Exploration Licensing Policy: petroleum ministers need to address these issues. The foreign oil companies do not want to enter into oil exploration in India and the main reason they say is that all the good fields are taken by the Indian companies (both public and private) and the most difficult ones are put on auction, so we are not interested. But oil is Indian economy's weakness. It is the single largest item on our import bill. I think oil dependency is a concern, and again because it is a concern, it is an opportunity. One has to get big into exploration onshore and offshore. It is a risky business. There are high risks, but there are high rewards as well.

Land issues, artificial shortages are of concern too. Land laws have not changed for last 100 years. We have not done anything on land so how do we bring more land into circulation - be it for industrial use, for housing, or for office space, land prices in urban India are unaffordable. POSCO is a single largest FDI investment in India. It is about US$ 10 billion investment. It's been five years and they are still struggling to get approvals. The issues are mainly land issues. Orissa has no dearth of land; but land acquisition is the critical one. Tata Steel's Orissa plant is also on the drawing board for the last 6 years, still no work has been done because they have only 60% of the land and the balance land acquisition is still to be worked upon. We saw what happened to the Nano factory. I think land and legal reforms are huge issues and need to be tackled.

We have other issues like that of Naxalism, terrorism and disturbances across our borders which are other dangers that can really ruin our country. The world is seeing the prosperity of India and there is a huge amount of jealousy amongst our neighbors and anything adverse on that will delay our progress and our growth. We need to be vigilant, we need to spend money on defence equipments and we need to properly secure our borders and our coastal lines. If you look at some defence areas, to my mind the facilities are not that great. Morale is there, determination is there but all the other things are not there. Terrorism, both domestic and international is a big worry.

Corruption is another major problem. If you ask me, which are the two problems India has, I would say corruption and bureaucracy. Bureaucracy and corruption, along with terrorism, are the major areas which can make us uncompetitive and make us more vulnerable, but other than that I think we are in best time ever in our history.

Still, there are concerns. In India's history we have only built 2-3 kilometers of roads a day. The Highway Ministry claims to take it to 7 kilometers per day. The amount of money required for growth is huge. When I was growing up, when I was of your age, Shapoorji Pallonji and HCC and L&T were there. Today also these companies are there. But, where are the new L&Ts? Small companies come up but they are tiny, they can do 20-30 kilometers at a time but there is no company (other than 3-4 big contractors) which can build 500 kilometers or 1000 kilometers at a time. For some reason, contracting work has not grown as expected but a huge amount of activity is expected in the future especially in road construction.

On the whole I think, India is on a sure footing: for example, see the results of companies. Every company is coming out with excellent results. Normally auto sales are worst impacted in the month of April (2010) as a large majority buy cars in February and March prior to the budget announcements and taxation changes. This year in April auto sales grew by about 38%. There is a shortage of tyres; there is a shortage of other auto ancillaries, nonetheless, the auto sector is booming and so is the Indian economy, unleashing numerous opportunities for the youth, for you all.

Realizing Leadership Potential*

Since you are all potential leaders of the future and most definitely an integral part of India's growth story, I have a few markers that you might like to keep as post-its on your screens as you navigate life hereafter. It is a recipe of experience, wisdom, lessons learnt and lessons imparted.

You have got to find what you love. Your work is going to fill a large part of your life and the only way to be truly satisfied is to do what you believe is great work. And the only way to do great work, imbued with as much passion and perfection you can muster, is to love what you do. If you have not found it, keep looking. Do not settle for the next best. As with all matters of the heart, you will know when you find it. It will be there in the smallest idea, a train ride, a journey quite mundane, a shower, a rain storm, an insipid or gourmet meal - in the most inconceivable circumstance, it will rear its head! And like any great relationship, it just gets better as the years roll on. In the trajectory of this search, you have to trust in something - your instinct, your destiny, life, karma, promise whatever. This approach has never let me down; it has been the single - lane bridge from mediocrity to excellence.

You will be tested to keep your ethical and moral fortitude and it is very easy to get carried away. It is up to you to stay alert and not get sucked into disreputable conduct, business practices or anything else which has even the slightest whiff of impropriety. It is true that your education from this institute will definitely give you the upper hand at the beginning. But in the long run it is your reputation which will determine how much success you ultimately achieve. The more successful you get, the higher the chances of being pulled into unethical and immoral business practices. And the most common excuse for such unethical behaviour is, "everyone is doing it". Always bear in mind that your reputation once lost, is almost impossible to earn back. There is no such thing as a temporary breach of integrity - you cannot make amendments later. So do not stay in any place where doing the right thing is not an option. Work honestly, make people trust you and let them depend on your integrity.

Be a good team player. It isn't always possible to run the whole mile alone. Remember that being able to get along and work with other people is a great asset in the real world. People are important and nothing can happen without them. It is people and your colleagues who help make things happen for you - who give you the chance to prove your worth. Any organisation is only as good as its people. Stay humble, but know and believe in yourself. Humility is essential for self-preservation - it helps you to remain approachable to people.

People say that success has a thousand fathers, but failure is an orphan. Some failure in life is inevitable - it is impossible to live without failing at something, unless you live so cautiously that you might as well not have lived at all! Always remember, the risk of making mistakes is respected, so long as you own them and learn from them.

The world needs you now more than ever before; your bold ideas, your energy and passion. It needs doers, dreamers and optimists. It needs people who believe that things can get better and people who are willing to work to make them better.

* Part of the speech delivered in the Convocation at FLAME, Pune on May 07, 2011.

Deepak Parekh, Chairman, HDFC spearheads India's leading Financial Services conglomerate with presence in Banking, Asset Management, Life Insurance, General Insurance, Real Estate Venture Fund and Education Loans. He is the Non-Executive Chairman of Glaxo Smithkline Pharmaceuticals, IDFC and Siemens India. He is on the boards of Castrol, Hindustan Unilever, Mahindra & Mahindra, and Indian Hotels among others and international boards of WNS Holdings and DP World. He is also on the Advisory Boards of several Indian Corporate and MNCs. He is dubbed as the unofficial crisis consultant of the Government and is a member of various high-powered Advisory Committees and Task Forces. Some of his most important recognitions are; the Padma Bhushan in 2006. "Knight in the Order of the Legion of Honour" one of the highest distinction by the French Republic in 2010; and the first International Recipient of the ICAEW Outstanding Achievement Award - 2010.

Steel Authority of India Limited

Conversation with Sushil Kumar Roongta

Steel Authority of India Limited (SAIL) is a successor entity to Hindustan Steel Limited (HSL) that was founded on January 19, 1954. HSL was mandated by the Government of India (GoI) to lay the infrastructure for rapid industrialization of a new nation. Initially HSL was designed to manage only one Integrated Steel Plant (ISP) at Rourkela (RSP) built with Indo-German collaboration. The preliminary works of the two other ISPs at Durgapur (DSP) and Bhilai (BSP) were done by Iron and Steel Ministry. Subsequently, from April, 1957, the supervision and control of these two plants were also transferred to HSL. A fourth ISP at Bokaro built with Russian (then Indo-USSR) collaboration came up independently as Bokaro Steel Limited (BSL) in 1964. By 1972-73, the four ISPs were producing 4 Million Metric Tons per Annum (MTPA) of crude steel, up from 0.158 MTPA in 1959-60.

Managing disperse ISPs with different work culture was becoming challenge for HSL. HSL's competency was in project execution and completion. Consequently, on December 2, 1972, the Ministry of Steel and Mines drafted a policy statement to evolve a new model for managing the industry. SAIL emerged on January 24, 1973, as the holding company with an authorized capital of Rs. 2,000 Crores. SAIL was charged with the responsibility of running the five ISPs , two special alloy steel plants , Bharat Coking Coal Limited (BCCL) and National Mining Development Corporation (NMDC). By 1978, SAIL was reconstituted as an operating company focused on steel making. BCCL and NMDC were spun off as independent companies.

In the subsequent three decades, SAIL grew up to consist of 5 ISPs, 3 Special Steel Plants (SSP) and one subsidiary (Maharastra Electrosmelt Limited - MEL) and one refractory unit spread over 7 states. It is the 21st largest producer of steel in the world and the largest in India with over 20% domestic market share for finished steel (2008). It is the second largest producer of iron ore in India (23.4 MTPA in 2009-10). Its marketing network of 37 branches, 67 warehouses, 26 customer contact offices and over 2500 dealers covered all districts of India. SAIL has its own R&D centre, Management Training Institute and Centre for Engineering and Technology. SAIL exports steel to 20 countries in the European Union, Middle East, South East Asian and neighbouring countries. SAIL employed approximately 1.15 lakh employees.

SAIL faced a crisis in the late nineties and the early years of the present century. Global recession in the steel industry along with a combination of related factors pushed the steel behemoth, considered too big to fail, into consecutive years of red that threatened its very existence. The man, who transformed SAIL [from a loss making public sector] to a Maharatna Public Sector Enterprise, was Mr. Sushil Kumar Roongta, Chairman of SAIL. Mr. Roongta visited IIM Indore to speak and interact with the academic community. The IMJ team N. Ravichandran and S. Basu had a conversation with Mr. Roongta on a wide range of issues related to SAIL. The edited overview of this is presented here.

IMJ: You had been at the helm of affairs at SAIL for the last four years from 2006 to 2010- what do you think were the major achievements in these four years?

Roongta: As I look back, I feel that my major achievements had been people related in SAIL and I could make the organization prepare for the next orbit, and to align their aspirations and strategic plan with their current performance and move ahead. I could make them believe in their own capabilities of doing much more than what they were doing. This was especially in terms of the expansion and modernization that we undertook, to take care of

1 Besides the ISPs at Rourkela, Durgapur, Bhilai and Bokaro, SAIL took over Indian Iron and Steel Company (IISCo), a privately held company in 1979, when the later became sick on account of a failed modernization.

2 Alloy Steel Plant (ASP) at Durgapur and Special Steel Plant (SSP) at Salem.

technological obsolescence, so that we are prepared for the next challenges.

IMJ: Essentially people related issues, making them believe that they are capable of doing more than what they are doing currently, aligning them to the strategic objective of the organization, taking care of technology and environmental related issues…

Roongta: Also in terms of raw material security, which is very important for a metal company, we made very significant progress. In fact SAIL is much secure in terms of raw materials today than what it was any time in the past. During this period, we secured rights for Rawghat Mines in Chhatisgarh having 500 million tons of ore deposits, the value of which today would be anywhere between 20,000 to 25,000 crores of rupees. We also made significant headways in terms of Chiria Mines. SAIL is left in a very positive state - being very strong in financial terms.

IMJ: Can you give us a feel of what you mean by strong financial position ?

Roongta: The net profit during my four years tenure was twice the aggregate net profit of SAIL since its inception. Plus when I departed, SAIL had about 20,000 Crores of cash deposits in various Banks. Of course we had debts also - but we had net positive cash and which was built over time - so that we could complete our modernization, through substantial internal funding.

IMJ: Some additional insights related to cash management?

Roongta: The aggregate net profit was about Rs. 27,000 Crores and the dividend payout was about 3 times the aggregate dividend payout in the previous several years. Also, during this time SAIL was recognized as one of the five Maharatna companies in India. In the year 2009, SaIL's profits were second highest amongst all the steel companies of the world. SAIL was also ranked # 2 amongst world class steel makers - this was very satisfying.

IMJ: You had said that you have been able to align the goals of the individuals with the strategic objective of SAIL. How did you achieve this? What instrument s did you use?

Roongta: I used the instrument of effective communication to reach out to the employees. Of course at my level, I could not talk to each and every individual, but I reached out to the senior management team (from general managers and above) and wide cross section in the plants, through my visits and through them to the rest of the SAIL family. And then I showed them through history that at some point of time they had been able to do much better and whatever new facilities that we have set up, should therefore translate to the desired outcome. Then, they had to accept that there are potentials of further growth. The only fear was that of under-performance, i.e. when the targets are set high and the same are not achieved, the departmental head is normally taken to task for underperformance. So I assured them, that so long you make sincere efforts but still not able to perform for reasons beyond your control, then when I assess you, I shall give due allowance. And then all the HODs shall support you. If you take your stretched targets and when you to accomplish them, you shall get great satisfaction. You know, it is human nature if you know that you have taken an easy target and you achieve it, it will not give you great happiness. On the other hand, if you have taken a difficult target and if you are able to achieve it, then it will give you a huge sense of accomplishment. Wherever, people could fulfil such targets, they were

then self-motivated to take still bigger targets. And especially I found our workers were always more forthcoming to take bigger challenges and solve problems. We modified our incentive schemes to align the employee aspirations with that of the organization. And of course we took initiative in multi-skilling. There was natural separation and since we could not enhance our manpower - therefore we did multi-skilling so that we could redeploy the employees and increase their productivity. During these four years, there was a reduction of almost 26-28 thousand in employees strength leading to big savings on wage bill.

IMJ: So you did not use the VRS route to increase productivity?

Roongta: Not really. We did one VRS in 2006-07, but on the whole we reduced about 28,000 people on a net basis. We did not stop recruiting completely. We were regularly taking a small number of fresh engineers, and also wherever there were skill gaps and we could not make it up internally, we were recruiting. But overall, there was a significant reduction in manpower and increase in productivity.

IMJ: If you were to profile and compare SAIL with Tata Steel, where will you put SAIL with respect to Tata Steel?

Roongta: SAIL and Tata Steel both have the same kind of origin. Tata Steel is of course an older company. Post independence both of us were expanding together till about 1991 when the licensing for Steel Industry was removed and economy was liberalized. Both SAIL and Tata Steel have very good and committed technical man power that are the core and backbone of the industry and the companies. Tata Steel enjoys a little more advantage in their backward integration in terms of coal. They have their own captive coal mines which meets about 50% of their needs while SAIL hardly has any captive coal mines hence it has to be outsourced. However, over the years, on several parameters, our units have been able to score over others. For example, Prime Minister's Trophy, which is instituted by the Government of India, to adjudge the best integrated steel plant in the country. Bhilai Steel Plant has won that trophy 8 out of 14 times in competition with all private and public sector integrated steel plants, including Tata Steel.

IMJ: You started your career in SAIL as an officer and had been there for a very long time. What do you think makes SAIL stand out amongst peers?

Roongta: Today SAIL stands out in terms of huge infrastructure and reasonably good backward integration in terms of iron ore captive mines; and also on very strong and committed manpower and solid financial position. The areas where SAIL needs improvement today are the energy efficiency and technologically obsolete plants which still contribute to about 30% of our production. Of course post modernization, they will go away. In terms of product quality, some of our older mills like the Cold Rolling Plant at Bokaro need modernization in the near future. We have been pioneers in introduction of several new products. SAIL introduced the earthquake resistant TMT bars, and several special grade products for Indian Navy and strategic sectors.

IMJ: How nimble is SAIL in terms of extensibility, market orientation, processes, new products etc.?

Roongta: In terms of systems and processes, SAIL is very strong and robust. I have not worked in any other PSU, but I have heard of people who have worked there and I believe that

SAIL has evolved a very strong set of systems and processes. SAIL has a very sound system of delegation with accountability. In fact, at all levels, we give adequate delegation of power which may not even exist in many private organizations. Even in capital projects, once a scheme is approved, they are given delegation to carry on a day to day basis. SAIL has a very strong marketing wing. Its customers have stood by them. Why they stood by SAIL is that they perceive SAIL as a very fair supplier - irrespective of market conditions. Steel is a cyclical industry and there are times when there are shortages and surpluses. During surplus, we seek customers, but during shortages, many times we change our approach. But customers generally feel that SAIL is equitable to all even during shortages. And therefore our customers don't want to leave SAIL altogether. So, even if they want to diversify their sources, they would prefer to keep some relationship with SAIL.

IMJ: Can you please share with us something about your own background and that of your growth in SAIL?

Roongta: I graduated in engineering from BITS Pilani and did my Post Graduate Diploma in Business Management from Indian Institute of Foreign Trade (IIFT), Delhi and then joined SAIL from campus recruitment as a marketing executive in foreign trade in 1972. At that time it was Hindustan Steel Limited the canalizing agency for import of steel, as users could not import steel directly. SAIL had the policy of taking graduates as trainees and train them for one year before putting them into job. But in my case, I was put straight on the job from day one. And the best things that happened to me was that I was overworked from day one. My boss gave me the files from day one. And the notes that I used to initiate would go all the way up to the Chairman of the Company as it involved purchases running into crores of rupees. And there were occasions when I was called for clarification by the General Manager and even the Chairman. So from the beginning, I developed the habit of working for extended hours and also got a very good exposure. That was my upbringing in SAIL. I had been with SAIL for 32 years from 1972 to 2004 when I became Director (Commercial) at SAIL. Earlier I had served in various capacities and in different locations and was ahead of peers in promotions. For about six years, I worked with the then Director of Marketing in his secretariat which gave me a comprehensive perspective of what was happening in SAIL. I worked with three successive Directors as in charge of their personal secretariat. Normally each new boss would like to bring his own team - but ultimately, when the fourth director came, I had to request him that I wanted to be in the field as I did not want to be type casted as capable of only doing this type of job. So he gave me dual charge so that I continue to work with me as well as in the field.

IMJ: Then, you moved up and away from marketing.

Roongta: No I remained in marketing. I will tell you the most challenging part of my career. It was 1996, I was the Regional Manager in Marketing, posted in Delhi and my Director (commercial) told me to go to Mumbai as RM, Western Region. That was a very critical time as both my children were in their final years of study - my daughter was just in 12th standard and my son was in the final year of graduation. I told my boss that this was the most inconvenient time for me and allow me one more year so that my children could complete their studies and then where ever he wanted, I shall go. But he said that

SAIL was fast losing its market share in Western Region and you were best suited to do the job. I had nothing else to say. In marketing, we had frequent transfers but my family always used to accompany me wherever I went. When I informed my family, they said that they will go along with me. My daughter had to change from CBSE board to Maharashtra Board as there were very few CBSE affiliated schools nearby my flat in Mumbai. My son had to stay behind with one of my close friend as he could not change his college. And let me tell you that things done with good intentions also bear good fruits. My daughter wanted to study medicine and in Maharashtra, the admissions in Medical colleges were based on performance of candidate in class 12. Also, half the seats there were reserved for domiciled candidates and other half for locals. I later came to know that Government and PSU employees on transfer are categorized as domiciled. Of course my daughter also worked hard and got into Medical - but then I don't know whether she would have been successful through all India Medical Examinations.

IMJ: Then you became Director Marketing.

Roongta: Yes but before that, I became the General Manager of Strategic Planning and Executive Director of Flat Products. The last posting was a challenging one. When I took over, there was huge inventory piled up in our plants and the MD of one of the plants said that unless Mr. Roongta helps us, we may have to shut down the production unit as coils were piled up above the danger zone and could topple. So I told my Chairman, Mr. Pandey that give me one month's time and I shall bring them down to safe levels. It was very challenging - but then, I could bring them down to manageable levels.

IMJ: What was the trick?

Roongta: In our system, since we had large numbers of stock yards, our marketing people would give release to the plants and allow them to produce without back up orders and stock them up in the stockyards and then make efforts to sell. And when you know that I have an inventory pile up which I cannot sell, then, obviously you would bargain hard with me. So the first thing I did was to say sorry, no release would be given, unless it has backup orders. So whatever effort you make to sell out of inventories, you better make it at the beginning to book orders. I asked the plants to cooperate and not dispatch without orders. You can blame me if I am not giving orders, but without backup orders, not a single ton of finished goods should be dispatched. That changed the situation - the marketing people started to put efforts in right time and inventory build up was eliminated.

IMJ: Was the inventory at the factory or at the stockyard?

Roongta: SAIL has the luxury of the stockyard as well as the plant - and the built up was in both places. Many companies don't have it. Therefore, whenever, there is a pressure in the plant, they would push it to the stockyards.

IMJ: You have a bird's eye view of SAIL's marketing - what changes have you seen - the stages that SAIL has gone through?

Roongta: We have seen a sea change in SAIL's marketing efforts. We call it marketing - but previously it was only rationing. No SAIL marketing executive was expected to meet customers outside SAIL's office - it was a taboo. Of course there were periods when we had surpluses and we had to solicit sales, but it was not marketing in its real

sense. Post 1991, we started real marketing of our products. We became proactive, started even giving clean credits to our customers, wherever required change our systems and processes, developing new products, understanding market needs and everything else to meet the competition from new players which entered the sector.

IMJ: Can you please recollect for us some significant events in your career?

Roongta: There are several - one was when I was a junior manager at the office of the Director Commercial - and Dr. Krishnamurthy, the then Chairman of SAIL wanted to meet me in his office. He was widely acclaimed and much respected Chairman of SAIL and I was told that he wanted to meet me for 30 minutes which was a big premium on his time. That interaction went on for 3 hours. He talked with me on all subjects including marketing, sales, plants, what we could do for SAIL and about general economic environment as well. And I was later told by the Director that he was very happy with the interaction.

The second occasion was when I proposed a scheme which would help SAIL to recover Rs. 30 crores due in the Controlled Era. I had a mathematical bent of mind and I used to analyze the numbers. Rs. 30 crores in 1980s was a big sum of money and it was taken up and SAIL got the money. I was given a special reward by the SAIL Chairman, of Rs. 10,000/- which in 1980s was big money.

The third occasion was when I was in Mumbai, SAIL was losing market share. So I was analyzing the customer profile and I found that the biggest steel consumer in the Western Region market was not our customer. I enquired with my subordinates as to what is the issue and they told me that the customer had a bad history and experience with SAIL. So I said that this wont work as this customer is likely to remain the largest buyer in the foreseeable future. So I called up their head of procurement. He was very difficult and sarcastic. So I told him to forget past and move ahead. But he was not convinced and the first meeting was a stalemate. Then I called on him two more times not-withstanding treatment to me, and on the third call, I was able to break ice. He said Mr. Roongta, I am surprised that you are here for the third time, chasing business. Let me tell you that we will be happy to do business with you as you are the largest supplier and we can source from you what we have to source from five different suppliers. And with SAIL I am assured of quality as you shall not cheat me. After that we got lot of orders and he ordered his office that SAIL's payment has to be made on dot. On one occasion, he had a sudden demand surge which he had not foreseen, nor did we factor in. However, I went out of way to help him and we also changed our processes to give clean credit. I took the approval of my Chairman saying that the customer was one of the biggest in the western market and he won't run away and if he is willing to change his systems, we should also reciprocate.

IMJ: In your career spanning nearly 40 years, there must be some unevenness - how did you manage them?

Roongta: There were several incidences when things happen beyond your control. I was the Director Marketing and market was heating up and we were making profits - but Government wanted us to control our prices. Now with increased cost of input, the output sale price should also increase. But that was not happening. Alternatively due to some mining accident, the worldwide supply of coking coal suffered and we were

left with in a very difficult situation. I could manage that most difficult situation.

Then there were the problems of environmental issues and there were multiple stakeholders. To obtain the mining lease of iron ore, I had to visit the doors of undersecretary, deputy secretary and several functionaries of central and state governments. And persistent efforts paid as I was aware of the true worth of those mining resources - they are worth thousands of crores and are essential for a steel plant.

IMJ: You have been able to maintain a fine work - life balance in spite of doing all types of work. How did you manage both the fronts?

Roongta: Let me tell you that I derive pleasure in my work and therefore for me it's not necessary that after I return home, I have to go to a cinema or a restaurant to have fun. Secondly, I must acknowledge that my wife did not bother me with petty household issues and she could manage everything well when I was hard pressed for time. Of course with my children I could spend some quality time - but when I reached the top, my children had already completed their studies. So I did not have to bother much for their education as well.

Family to me is equally important as my career and I am happy that my children have shaped up well and are pursuing their own career and I think that is the real gift from God.

IMJ: If you are to decide on one broad functional area in management like, marketing, people management, strategy, team making - what is it that you enjoyed the most?

Roongta: Although I spent 32 years in marketing, I spent one year as Director HR and that period was most rewarding to me. I was not formally trained in HR - but that provided me with a larger platform to deal with trade unions, officers associations, formulating the HR and personal policies. Of course strategy has been my focus like planning for SAIL. I would certainly like to do Strategic Finance and people related issues. I made some very good friends amongst the Trade Unions which stood in good stead when I became the chairman.

IMJ: In a very large organization, how do you deal with defaulters, deviant people - what is your broad strategy?

Roongta: I personally believe that the huge majority of people like to do work, deliver results and like to be recognized for what they do. So if they are not able to deliver, then that may be due to wrong association, or not being in the right job or some historical reasons. So I practiced two things - first, I sent out a very clear message that many of us have personal problems and we want benefits like transfers to preferred locations and other things. I said, make life comfortable for those executives who are doing outstanding jobs for the company. So it was mandatory on the part of the company to attend to their problems. But for those who were not delivering and were only demanding, the company was not obliged to help all the time. I sent out a very loud and clear message for performers and non performers.

Second, we did deploy people to some specific jobs where they could deliver to their best of ability. And then there are still some other types of people who would not deliver, even after being accommodated to their choice. I understand that we shall continue to have some baggage of that kind - so we shall put them in some jobs where they will not be able to create obstructions for the company and for others.

That was my strategy - that's what I followed.

IMJ: How do you deal with your peers - like your ED/MD/Head of Plants - should there be a conflict between you and them, or how do you bring about consensus in your board?

Roongta: As the Chairman of the board, you do not have the final say - as PSU boards have independent directors, government directors who have their own say. And you have to appreciate that they are there to make some valuable contributions. Therefore my style was allowing people to say - even if that was not what I wanted. And sometimes very good things come out from such discussions and suggestions. So I allowed free and open discussion in the board. A proposal which I thought was beneficial for the company may have a counter view that was even more beneficial. But thereafter I would sense in which direction the board was going. And there was always unanimity. I never tried to impose my will on the board as chairman and we never had in my tenure any vote in the board. However, if there were occasions when board had a difference of opinion with me, then I would put forth convincing arguments in favour of my points placed and they trust in my credibility. Regarding my colleagues, I could get away with my views as I was their boss and due to my stature. But if I found merit in my colleague's argument, I would not make him leave my room thinking that the Chairman has silenced him. I would advocate reasons as to why I am doing like that and they would more or less see my perspective of the argument. And wherever, there were strong reasons to believe my colleague, I would modify my views.

IMJ: What would be your advice to the CEO of a PSU of the stature of SAIL such as NTPC, BHEL and others?

Roongta: I can only say that all PSUs are big reservoirs of great potential, great strengths. Generally, PSUs are very much focused on their current performance and current results. Now they must align their current performance with their strategic goals so that they are in a position to think big and act big. There would be problems regarding environment management - but they must not be bogged down by petty issues - but focus on things that are strategic in nature.

IMJ: After Dr. Krishnamurthy, there had not been any outsider as SAIL's chairman - other than the present incumbent. Is it a good sign and why it had happened?

Roongta: I understand government has good reasons to select my successor. He has vast experience and I wish him good luck. The only thing that I wanted to say was that succession planning in PSUs is inadequate and it is time that we should devote more time to that. One of the reasons why SAIL could not throw up an internal candidate was that, in my board, there was no internal director who had 2 years of boardroom experience, which was the minimum criteria required. And yet SAIL has a huge pool of talents from within. So there was some gap somewhere in adequate succession plan for SAIL which needs to be plugged. And this is true for the majority of the PSUs. This makes the task of managing big PSUs by an outsider more challenging and therefore I can only wish him the very best.

IMJ: What would be your advice to a young graduate moving out of the business school?

Roongta: I can only advise him to have belief in himself, about his capabilities, have a very positive attitude towards the chosen profession in life. He must firmly believe that it is his hard work, his commitment to job that will take him far in his career. No short-cuts, cutting corners or manipulation would work in this world. I strongly believe

that only the positive attributes will work and shortcuts if any, shall bring only limited or short time gains - but won't fetch you far.

IMJ: We are tempted to ask you more questions, but we think we have taken up a lot of your time. We thank you very much for coming to Indore and spending time with us.

Roongta: Thank you Mr. Ravichandran and Mr. Basu, I thank you for all your hospitality and invitation to come to IIM Indore.

S. K. Roongta is the Managing Director of Vedanta Aluminium Limited and heads the Aluminium Business of the Vedanta Group comprising 3 million tonnes of fully integrated aluminium, together with 6000MW of Power Plants, including BALCO. Earlier during his tenure as Chairman of SAIL from August' 2006 to May' 2010, the company achieved several new landmarks in operational and financial performance and he was instrumental in undertaking massive modernization and growth plans for the company. During this period, as per World Steel Dynamics, the ranking of SAIL among 'World Class Steel Makers' moved up to no. two from no. seventeen earlier, and was accorded 'Maharatna' status by the Government. He is an Engineering Graduate from BITS Pilani and is a gold medalist in PGDBM (International Trade) from IIFT, New Delhi. Mr. Roongta holds important positions in various apex chambers, being Chairman of Steel and Non-Ferrous Metal Committee of FICCI & Chairman of PSU committee of ASSOCHAM. He also serves as Independent Director on the Boards of Hindustan Petroleum Corporation Ltd. (HPCL), The Shipping Corporation of India Ltd. (SCI), Neyveli Lignite Corp. Ltd. (NLC), Jubilant Industries Ltd (JIL) & ACC Ltd. He is also associated with several academic institutions, being Member of Board of Governors, IIT Bhubneshwar, Member of Governing Board, JKL University & Member of General Body, BITS, Pilani.

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Strategic Human Resource Management Content in the Annual Report of Companies: An Analysis through Text Mining

Kumar Kunal Kamal and Ashok Kumar

Abstract

In the light of different annual report studies, the paper argues that annual reports, considered to be a rich source of information about the future strategy of any company, can be analyzed for finding out the importance that top management places on SHRM concepts. By employing frequency analysis under text mining approach, the paper first identifies top ranked SHRM concepts by probing SHRM literature and then compares their ranking in the text of annual reports. The findings suggest that so far as annual report narratives are concerned, the areas of interest of SHRM researchers are disjoint with those of the top management.

Keywords: SHRM, Annual Reports, Text Mining, Concept Mining, Frequency Analysis

1. Introduction

Apart from supplying useful quantitative information, annual reports are a rich source of qualitative data that permit a researcher to do content analysis (Bowman, 1978). The present study employs a text mining approach to analyze the content of the narratives of texts found in Strategic Human Resource Management (SHRM) literature and compares them with those found in annual reports. As literature on Human Resource Management (HRM) is full of arguments in support of strategic importance of human resources for getting any kind of success in a variety of organizations, the paper accentuates SHRM literature. Moreover, as a company's vision, strategies, policies and their execution cannot be thought of without making a reference to strategic human resources, it is expected that annual reports, considered to be a rich source of information about the future strategy of any company, would put due emphasis on their SHRM content, and that this emphasis would get a reflection in the frequency of SHRM concepts mentioned in the annual reports.

The paper is divided into multiple sections: starting with a brief review of literature, it moves on to elaborate the focus areas and then to the paradigms involved in analyzing annual reports. The paper argues that annual reports, considered to be one of the most important documents for strategic communication with the shareholders, can be analyzed for probing the value that top management places on particular 'areas of interest' of SHRM literature. The methodology of finding areas of interest through a text mining approach is detailed, followed by a comprehensive assessment of the issues and challenges involved.

2. Literature Review

Annual reports have been analyzed by researchers for a very wide range of topics: while Bowman (1978) studied the role of annual reports in corporate strategy; Revsine (1991) probed their role in what he termed 'selective financial misrepresentation'; working on a different note, Alessandri (2001) examined the use of annual reports in projecting a positive corporate identity. The use of annual reports as persuasive rhetorical devices has also attracted the attention of researchers (Graves, Flesher, & Jordan, 1996; Thompson, 1991), who have emphasized the application of annual reports as a tool of legitimating process for symbolic management (Tsang, 2001), and their employment in construction of company's social image (Gray, Kouhy, & Lavers, 1995; Hines, 1988). Their use as a tool for managing public impressions (Neu, Warsame, & Pedwell, 1998) and as a marketing

and branding tool (Bekey, 1990; Judd & Tims, 1991) has also been given due emphasis by researchers. On a wider note, researchers have also studied the role of annual reports in democratic processes (Butterworth, Gray, & Haslam, 1989) and have analyzed them as documents that reflect national traits (Dawson & Steward, 1991). Across all these studies, the methodology of research has primarily been content analysis in which the authors have focused on the qualitative aspects of annual reports.

2.1 Focus areas of annual reports analysis

Annual reports have been analyzed by researchers in a very minute way; the prime focus areas of annual reports that have gone under the lens of researchers are: pictorial information, graphical information, president's/chairman's message, the narrative part, and the form and structure of the whole text. While discussing pictorial information, researchers have focused on issues such as: sex-role stereotyping (Anderson & Imperia, 1992); male-female depiction in annual reports and their relation to perception of corporate climate (Kuiper, 1988); ways in which one can look at the images, viz. representational, constitutive, and ideological (Preston, Wright, & Young, 1996), and have even linked the representation of images in annual reports with the representation in other media (Graves, Flesher, & Jordon, 1996). The focus on graphical information has attracted a lot of attention from researchers who have underlined selective misrepresentation of information through graphs: the use and abuse of graphs in representing information is a well-researched topic (Beattie & Jones, 1992; Johnson, Rice, & Roemmich, 1980; Mather, Mather, & Ramsay, 2005; Mather, Ramsay, & Serry, 1996; Mather, Ramsay, & Steen, 2000). Researches done on graphical information are also rich with longitudinal (Bartlett & Jones, 1997; Beattie, Dhanani, & Jones, 2008; Beattie & Jones, 2000) and comparative studies across nations (Beattie & Jones, 1997, 2001).

Turning to president's/chairman's message in annual reports: Abrahamson and Amir (1996) examined them for relationship between the use of words with negative connotations and their relationship with financial measures like sales, book rate of return, etc. In a similar vein, Smith and Taffler (2000) explored for associations between the narrative of chairman's message and the event of firm failure. While Hyland (1998) examined the role of metadiscourse to show the persuasive nature of the messages that try to realize rational, credible, and affective appeals, Hooghiemstra (2008) examined the narratives for presence of self-serving attribution bias across cultures in explaining company results to shareholders. Researchers have also looked at the linguistic structures of the management messages to establish a link between the changes in linguistic structures and the kind of information conveyed (Thomas, 1997).

The narrative part of annual reports has also attracted attention from many researchers: while Lajili and Zegal (2005) examined the risk information disclosures in the narratives for their usefulness in gaining insights into risk environment, Tennyson, Ingram and Dugan (1990) have analyzed the content in explaining bankruptcy. The narratives have also been explored to gauge the ethical identity of Islamic banks (Haniffa & Hudaib, 2007) and have been the subject of analysis in understanding the role of ideological belief in issues of environmental reporting (Yapa, Harvey, & Ellis, 2005). Working on a different note, researchers like Zeghal and Ahmed (1990) have argued that narratives in annual reports alone are not adequate to represent the information disclosure activities of a firm or an industry, and have emphasized the utility of disclosures through other mass media vehicles.

The overall form and structure of the annual reports has also been analyzed in detail, with most studies focusing on longitudinal analysis to find out the differences in form and structure of annual reports published through a time period (Bartlett & Jones, 1997; Beattie, Dhanani, & Jones, 2008; Lee, 1994; McKinstry, 1996). Researchers have also attempted to arrive at a generic model of annual reports that can be used by companies to either confirm to a 'typical' annual report or to separate one's annual report from the 'herd' (Marino Jr, 1995).

2.2 Paradigms in the analysis of annual reports

The paradigms applied to the analysis of annual reports have in general focused on syntactic probes utilizing application of readability formulas and frequency analysis; however, semantic and stylistic probes have also been undertaken. It might be noted that researchers have often applied multiple forms of analysis to probe the texts.

While the focus of syntactic analysis has been the analysis of various readability indices like Flesch and Fog (Parker, 1982; Pashalian & Crissy, 1950; Smith & Smith, 1971; Soper & Dolphin Jr, 1964; Subramanian, Insley, & Blackwell, 1993), researchers have done semantic analysis in different ways like: investigation of variation in the language of annual report and verification through utilization of a general semantic model of extensional-intentional paradigm (Seidler & Lebar, 1982); putting annual reports under lens of Haberman's norms of communicative action (Yuthas, Rogers, & Dillard, 2002); and, inquiring the text of annual reports for the application of 'Pollyanna Principle' (Kohut & Segars, 1992). While doing stylistic analysis, researchers have examined the word choice, frequency of use, and other aspects of linguistic information like verb structures and thematic structure (Hyland, 1998; Rutherford, 2005; Thomas, 1997). The focus of frequency analysis has been the computation of frequency with which a word, concept, lines of prose or disclosers are mentioned (Bowman, 1978, 1984).

2.3 Text mining annual reports

Annual reports are considered to be the most important external document of any company as they contain crucial information about their financial performance and their future strategies (Kloptchenko, et al., 2004). However, as Kloptchenko, et al. (2004) argue, the quantitative part of an annual report, along with the tables and graphs that visualize the quantitative information, reflect only the past and not the future - it is the linguistic structure and the written style of the text that indicates how a company will do. Rutherford's (2005) analysis of annual reports to identify the genre to which the annual reports belong is an important study in which the researchers applied a 'text mining approach' to find out the coverage given to particular words based on the frequency of their occurrence.

As evident through review of literature, no study has yet attempted to analyze company annual reports using text mining tools to probe their content in order to find out the relative importance that the top management places on SHRM concepts.

3. Methodology

As the present study requires finding out the focus areas of researchers in the field of SHRM and inquiring if they get a reflection in the text of the annual reports, the focus areas of SHRM literature are found first: to do so, measurable surrogate variables are established. Grounding on the argument of Bowman (1978), that "surrogate variables which can be measured are loosely coupled to and can be used as approximations for the variables of interest", the paper identifies 'frequency of occurrence of phrases or concepts in texts' as the surrogate variable and the 'focus areas of top management' as variables of interest. The paper argues that the frequency of occurrence of concepts would capture the relative importance of concepts in the texts probed. It might be noted that even though researchers have differed in their use of the terms 'phrase' and 'concept', the terms are used interchangeably in this paper.

Two studies require elaborate mention; both studies are recent and have applied a text mining approach to analyze narratives: while Peslak (2005) analyzed the narratives of annual reports, Singh, Hu, and Roehl (2007) probed research articles. Peslak's study was exploratory in nature and examined the relative importance of information technology through content analysis of annual reports. The methodology applied included identification of important terms and examining their inclusion in annual reports: while frequent and common IT terms were identified through analysis of various sources, their inclusion in the annual reports was examined through two ways - a discrete yes/no variable (whether the term was

mentioned or not) and the frequency of the mentions. A similar approach was applied in Singh et al.'s (2007) study but to an altogether different dataset: they selected 40 research papers in the field of human resource management published in the International Journal of Hospitality Management between the years 1994 - 2003. The authors did a textual analysis through CATPAC software to identify high frequency keywords that clustered together to present the prominent themes within the field of human resources. The study identified nine major research themes and the authors discussed each thematic development with respect to time and country. As the authors asserted, the study demonstrated the usefulness of text-mining application in the field of human resource management.

Both the studies discussed above applied a text mining approach to discover knowledge from narratives. Taking clue from these studies, the present study applies a text mining approach to discover patterns from one dataset comprising narratives of books, and looks out for their occurrence in another dataset comprising narratives of annual reports. This way the present study does a comparative analysis of the narratives of the two datasets.

3.1 Applying text mining to probe narratives

Text Analysis is a form of content analysis that deals with the textual form of information; while content analyses can be performed on any symbolic material, be it visual, acoustic, tactile or whatever, text analyses are only of text and transcripts (Roberts, 1997). The approach in this study is to analyze the text through 'mining' of the narratives. To put objectivity in the study, the narratives are mined through the text mining software SPSS Clementine 12.0 (with add-on module for text mining) that uses LexiQuest, considered a strong tool with solid linguistic foundation (Sullivan, 2004). The study is divided into two parts: first the important concepts from SHRM literature are identified; next their importance in the text of annual reports is examined.

3.2 Application of a concept based approach

The present study is focused on concept-based approach: major phrases used in the academic environment (i.e. books) are found out and compared with those found in the business environment (i.e. annual reports). The focus on concept approach is useful as it excels over both rule-based natural language processing and word-based approach: while rule-based approach is marred by exceptions, researchers have argued that using phrases/concepts as a basic unit is more practical and useful than using words as basic unit (Cohen & Hersh, 2005; Majoros, Subramanian, & Yandell, 2003). The present study therefore uses concepts as the basic unit of analysis. To authors' knowledge, this is the first study that uses a concept-based approach to mine the texts of annual reports and academic writings in the field of SHRM.

3.3 Concept extraction

The primary subtask in the present study was 'concept extraction'. The text-mining program used in this study helps find the concepts and their frequency of occurrence in any given dataset. It has been argued that in order to discover the hidden patterns of information one should combine mining function with a trial-and-error approach (Uramoto, et al., 2004). The choice of various settings during the computerized text mining, e.g. giving inputs to the program in terms of the number of concepts (based on global frequencies) it should return for further analysis, is an example of the application of trial-and-error approach used in the present study.

A major challenge of text mining approach is considered to be 'term ambiguities'. Term ambiguity occurs when the same term is used to denote multiple concepts: it has been argued that researchers would have to use their discretion to resolve any term ambiguities that might creep in during the whole process (Spasic, et al., 2005). However, as the textual databases used in the present study refer to specialized domains (the annual reports referring to a particular domain of business writing, and the

books focusing on issues related to SHRM) term ambiguity is expected to play a restricted role in the present study, more so, because the language used in particular domains are supposed to contain lesser ambiguities because of the use of explicit framework and the closed vocabulary (Harris, 2002).

Another problem that affects text mining is the problem of mapping synonyms to a single concept. It has been argued that if all of the synonyms and abbreviations for an entity (the concept in the present study) are mapped to a single entity representing the concept then text-mining tasks would become more efficient (Cohen & Hersh, 2005). This particular problem of mapping synonyms to a single concept is taken care of by the text-mining tool which the present study employs as it matches different 'entities' (i.e. phrases) to a singular concept.

3.4 Selection of samples

As in the field of information retrieval, it is impractical to observe entire populations (Cohen & Hersh, 2005), the following sample populations were selected for the present study: a) Annual reports of companies belonging to BSE Sectoral Indices representing eleven different sectors (Auto, Capital Goods, Consumer Durables, FMCG, Healthcare, IT, Metal, Oil & Gas, Power, and Realty); b) Electronic format of books related to the field of human resource management and dealing specifically with its strategic nature. This way, a total of 11 books (representing SHRM literature) and annual reports of 142 companies (representing BSE sectoral indices) for a period of six years (2003-2008) comprised the sample data for the study. For the list of 11 books used in the study please refer to Appendix I.

3.5 Data processing

Although the text-mining tool used in the study supports multiple file formats, to decrease the processing time of data, all the documents were converted to TXT format. This format is the simplest format and the most efficient for text mining purposes. This process also ensured that the concepts identified would be with respect to 100% of the contents of the documents concerned, i.e. books and the annual reports. Next, the data comprising individual files were put into different folders to assist in proper analysis. The data was run through the SPSS Clementine 12.0 program under the following model: creating a concept model based on global frequencies of top 10000 concepts in the documents-sets. The frequency based concept model was used to identify both the 'areas of interest' of the researchers as well as probe the areas identified in the annual reports. It might be noted here that as the whole process of concept identification and extraction was completed by the software, there was no need to test inter-coder reliability (Stathopoulou, 2005).

4. Results

The data forming the 11 books were analyzed to extract top 50 concepts based on their frequency of occurrence. Table 1 contains the list of the top 50 concepts identified from the books (representative of SHRM literature). The top 50 concepts taken together accounted for a total of 7.87 % (rounded off to two decimal places) of all the concepts extracted from the books. On the contrary, these concepts could account only for a total of 0.12 % of total concepts extracted from the annual reports. It was surprising to find that some of the concepts among the top 50 concepts of SHRM literature could not find a place in the top 10000 concepts extracted from annual reports, thus getting no representation in the final percentage outcomes calculated on the basis of the frequency of occurrence. The details are provided in exhibit 1. Removing those concepts that did not find a place in top 10000 concepts extracted from annual reports, a final list of concepts was drawn to calculate the ranks of the concepts based on their representation in annual reports. A list of the top concepts of SHRM literature based on their representation in annual reports is given in exhibit II.

The highest rank-getter was the concept of 'human resources' followed by 'information technology'. Concepts like human resource planning, HR strategies, and strategic learning, which have often been used by the researchers in the SHRM field, could

not make it to top 10000 concepts. Even concepts like people management, personnel management, human resource practices, and HR function, considered to be strategically very important to companies, did not find a place in the top 10000 concepts.

As the present study involved analysis of annual reports of companies belonging to different sectors of the economy, it was possible to conduct a cross sectoral inquiry: the representations of the top 50 concepts (from the books) in the annual reports of the different companies representing different sectors were found to be largely non-variant with IT sector taking a lead in mention of SHRM concepts (see Exhibit III).

Next, the study focused on application of a time-based approach to examine if there have been any major variations in the mention of SHRM concepts by the companies through the time period of Year 2003-2008. For this, the period was divided into three time frames, each representing a time period of two years (2003-2004, 2005-2006, and 2007-2008). Apart from doing a consolidated analysis on all the sectors (wherein all the data was put under three headings representing the three time periods), a time based analysis of the sectoral indices was also performed: the outputs showed no significant differences except for the realty sector which showed a marked increase in mention of concepts related to the field of SHRM in the annual reports during the period 2007-2008; IT sector dominated all sectors in the three time periods with Oil & Gas sector closely following the lead (for details please refer to Exhibit IV and V).

5. Discussion

The findings suggest that top management prefers to give the important concepts of the field of SHRM a miss when it comes to communicating through one of its most strategically important documents. More so, even in terms of time-periods it was found that the mention of SHRM concepts in annual reports has more or less remained the same: in fact a decrease in the mention of SHRM concepts was indicated in comparing the annual reports of the recent time period of 2007-2008 to the time period of 2003-2004. The dismal representation of the Top 50 concepts of SHRM in the annual reports raise an important question: are the areas of interest of SHRM researchers disjoint with the areas of top management as reflected through annual reports? The findings suggest that there indeed is dissociation: however, this conclusion is based only on the annual reports of the companies and does not include communication through other media. Even so, this is an alarming situation in a country like India that has strategic advantage of the size and variety of skilled human resources. This should also be seen in the light of the fact that annual reports are considered an important tool of communication for putting across future strategies to the stakeholders of any organization.

Text mining is not without its challenges. One of the major challenges, as identified by Cohen and Hersh (2005), is the lack of user-friendly tools and restricted access to full texts. Another challenge is the lack of updated lexical databases - as most text mining tools use the lexical database of 'WordNet' which is not domain specific, in order to improve the efficiency and effectiveness of the text mining tools, researchers need to come up with updated lexical databases containing domain specific terms. This challenge can however be attended with ease as researchers in the field of human resource management have already built domain specific dictionaries and encyclopedias (Cartwright, 2005; Heery & Noon, 2008; Ivanovic & Collin, 2006); this way, creating a domain specific lexical database compatible with WordNet would not be that challenging a task.

Another important problem concerns the nature of the Data. The two biggest hindrances in text mining approach are: a) the availability of the document, and b) its readiness for text mining purposes, i.e. it should be 'readable' for the program. Most of the data available, even when in electronic form, are not scanned to suit text mining purposes, or are sometimes encrypted - two biggest hindrances to data processing when it comes to data mining, as OCR (optical character recognition) scanning of the non-OCR documents is a necessity of almost all the text mining tools. In non-OCR scanned documents, the text in the

images/files cannot be identified, rendering text mining an impossible task. Similar is the case with encrypted documents - encryption being a major roadblock in OCR conversion that impedes the entire process of text mining. Researchers who apply text-mining approach to data analysis should not overlook these issues.

In the modern day where rate of publication of scholarly texts itself is so high that it is virtually impossible for any researcher to keep abreast with the huge information overload that the avid researcher faces, text mining would come handy by giving a sneak preview of the happenings in the texts. Text mining would help the researchers identify new concepts being discussed and would help them locate documents that would be most relevant. Such an approach would be even more important for a researcher who is working on an interdisciplinary research as it would help identify important documents without much hindrance; such approaches are already being used by bibliographic databases that help researchers identify the relevant scholarly texts; moreover a detailed text mining approach will help researchers identify relations which they could not find in a restricted environment. This is an approach that needs more focus from researchers, and is waiting to be exploited for the benefit of the research community and for the society at large. The areas of strategic importance such as SHRM should be analyzed through text mining tools to draw the attention of the top management. The periodical feedback of such a nature will definitely lead to action and communication about SHRM by the top management in giving it due importance.

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APPENDIX I

List of Books

1. Armstrong, M. (2008). Strategic human resource management : a guide to action. London; Philadelphia: Kogan Page.
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EXHIBIT I
Top 50 SHRM Concepts and their Occurrences

Rank	Concept	% of Occurrence (SHRM Literature)	% of Occurrence (Annual Reports)
1	strategic human resource management	0.747	Not Represented
2	human resource management	0.555	0.003
3	human resources	0.374	0.036
4	business strategy	0.351	0.007
5	hr function	0.350	Not Represented
6	human capital	0.331	0.004
7	line managers	0.233	Not Represented
8	competitive advantage	0.223	0.008
9	hr strategies	0.220	Not Represented
10	strategic public personnel administration	0.201	Not Represented
11	human resource planning	0.167	Not Represented
12	hr professionals	0.165	Not Represented
13	performance management	0.160	0.002
14	organizational learning	0.159	Not Represented
15	hr practices	0.152	Not Represented
16	strategic hrm	0.152	Not Represented
17	people management	0.149	Not Represented
18	public administration	0.146	Not Represented
19	strategic learning	0.146	Not Represented
20	strategic human capital management	0.140	Not Represented
21	hr effectiveness	0.136	Not Represented
22	strategic partner	0.135	0.001
23	senior managers	0.129	Not Represented
24	hr executives	0.112	Not Represented
25	strategic planning	0.112	0.002
26	business units	0.111	0.008
27	human resource practices	0.104	Not Represented
28	team members	0.104	0.001
29	organizational performance	0.103	Not Represented
30	strategic human resource development	0.101	Not Represented
31	best practices	0.100	0.012
32	organizational dynamics	0.100	Not Represented
33	change agent	0.099	Not Represented

34	change initiatives	0.096	Not Represented
35	organizational culture	0.092	Not Represented
36	performance appraisal	0.092	Not Represented
37	public sector	0.016	0.007
38	human resource function	0.089	Not Represented
39	strategic human resources organization	0.084	Not Represented
40	firm performance	0.081	Not Represented
41	change management	0.079	Not Represented
42	information technology	0.078	0.016
43	organizational change	0.078	Not Represented
44	business partner	0.077	Not Represented
45	personnel management	0.077	Not Represented
46	hr organization	0.075	Not Represented
47	organizational design	0.074	Not Represented
48	industrial relations	0.073	0.013
49	hr activities	0.073	Not Represented
50	organizational behavior	0.071	Not Represented

EXHIBIT II
Representation of Top Concepts of SHRM Literature in Annual Reports

Rank (SHRM Literature)	Rank (Annual Reports)	Concept	% of Occurrence (SHRM Literature)	% of Occurrence (Annual Reports)
3	1	human resources	0.374	0.036
42	2	information technology	0.078	0.016
48	3	industrial relations	0.073	0.013
31	4	best practices	0.100	0.012
26	5	business units	0.111	0.008
8	6	competitive advantage	0.223	0.008
37	7	public sector	0.016	0.007
4	8	business strategy	0.351	0.007
6	9	human capital	0.331	0.004
2	10	human resource management	0.555	0.003
13	11	performance management	0.160	0.002
25	12	strategic planning	0.112	0.002
22	13	strategic partner	0.135	0.001
28	14	team members	0.104	0.001

EXHIBIT III
Sectoral Representation of Top SHRM Concepts

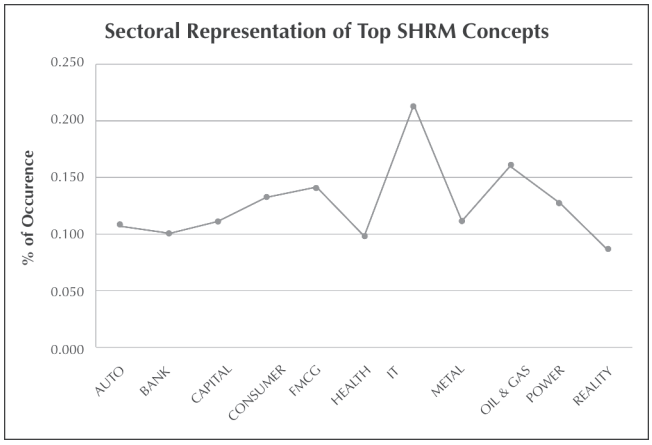

EXHIBIT IV
Sectoral Representation of Top SHRM Concepts (Time Based)

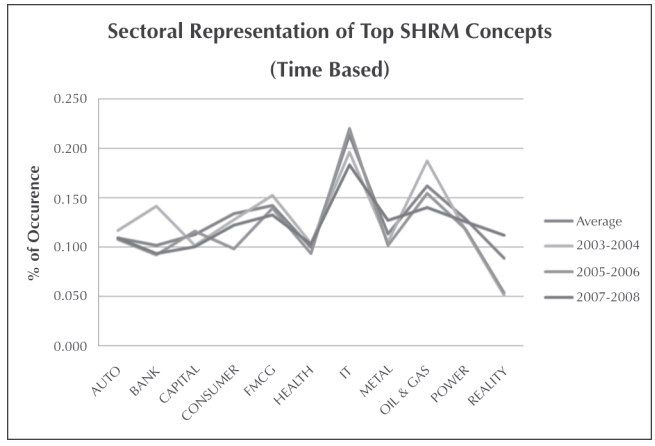

EXHIBIT V
Time Based Analysis of Top Concepts of SHRM Literature

	Average	2003-2004	2005-06	2007-08
Consolidated	0.122	0.129	0.121	0.123
AUTO	0.109	0.117	0.108	0.109
BANK	0.101	0.142	0.092	0.094
CAPITAL	0.112	0.102	0.116	0.101
CONSUMER	0.134	0.128	0.098	0.122
FMCG	0.142	0.152	0.139	0.133
HEALTH	0.099	0.104	0.093	0.103
IT	0.213	0.196	0.220	0.183
METAL	0.113	0.105	0.102	0.127
OIL&GAS	0.162	0.187	0.154	0.140
POWER	0.128	0.117	0.118	0.126
REALTY	0.089	0.051	0.054	0.112

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Recent Financial Crisis and Market Efficiency: An Empirical Analysis of Indian Stock Market

Anil K. Sharma and Neha Seth

Abstract

The present paper adds to the literature of market efficiency by studying the impact of recent financial crisis on stock market efficiency in emerging stock markets such as India. The data for last 10 years were collected from both Bombay Stock Exchange (BSE) and National Stock Exchange (NSE) in India. The data was divided into two sub-periods, i.e. before financial crisis period (period-I) and during financial crisis period (period-II). The study concludes that Indian stock markets do not exhibit weak form of market efficiency and thus do not follow random walk in both period-I and period-II. The study implies that the recent financial crisis did not impact the behavior of Indian stock markets to a great extent. The results of the study might be useful for investors, corporate executives, portfolio managers and policy makers in framing business policies and for the appraisal and management of present portfolios.

Keywords: Market Efficiency, Recent Financial Crisis, Indian Stock Market.

1. Introduction

The evidence from past research has shown that the healthy functioning of stock markets have considerable effect on growth of an economy in a developing country. There have been large numbers of studies, conducted around the globe by many researchers since last few decades, on the subject of stock market efficiency. But the results of these studies are conflicting, which makes it difficult to comment on the status of stock market of a particular country. As a result, the stock market behavior in developing countries deserves more attention. Therefore, it would be interesting to investigate how the recent financial crisis has affected the Indian stock market over time.

The term "stock market efficiency" is used to explain the association between the information and share prices in the market. The term market efficiency was first defined by Eugene Fama in 1970, where he has defined market efficiency as the efficiency in stock markets as the condition when the security prices in that market adjust rapidly to the introduction of new information. Therefore, it is believed that in an efficient market, current prices of securities reflect all the information useful for price prediction of securities in the stock market. The efficiency of the market depends upon the extent of absorption of information, the time taken for absorption and the type of information absorbed. Fama (1970) suggested that the efficient market hypothesis can be divided into three categories. These are weak form, semi-strong form and strong form. In the 'weak form efficient market' hypothesis, he states that current prices fully reflect all the information contained in the historical prices. In 'semi-strong form', the current prices of stocks reflect all informational content of historical prices as well as all publicly available information. In the 'strong form', the prices of securities fully reflect all available information i.e., both public as well as private. The strong form maintains that not only the publicly available information is useless to the investor or analyst but all information is useless.

Financial crisis is a situation in which the value of financial institutions or assets drops rapidly and it is often associated with a panic or a run on the banks, in which investors sell off assets or withdraw money from savings accounts with the expectation that the value of those assets will drop if they remain at a financial institution (Investopedia). The end of 2007 and beginning of 2008 observed the arrival of global financial crisis which had bought the havoc to the financial markets around the world. The turbulence began in the global stock market scenario with a liquidity shortfall in US banking system and continual

fall in stock prices on information that Lehman Brothers, Merill Lynch and many other investment bankers and companies are collapsing. The stock markets around the globe suffered huge losses and Indian stock market was not an exception. The SENSEX which had reached historically high levels in the beginning of 2008, turned down to its level about three years back and the S&P CNX NIFTY also followed the similar trend.

Several investment policies can be adopted after making a decision about stock market's efficiency when stock markets were affected by financial crisis shocks. The research on this subject matter are very few, particularly in the frame of stock markets in India. Hence, this paper is an attempt to provide some empirical evidence on efficiency in Indian stock market as a result of recent global financial crisis.

The remaining paper has been organized as follows. Section II briefly explains the review of past literature, sections III gives the rationale and scope of the study, sections IV and V are devoted to objective and hypothesis part respectively, section VI clarifies the data and research methodology adopted and finally section VII concludes with the findings of the study.

2. Review of Literature

Various researchers have given their observations and views regarding different worldwide stock markets. The results given by these social scientists were not similar but contradictory. There were two different schools of thought, the first declared the presence of weak form market efficiency in some international stock markets but at the same time few researchers did not find any evidence of random walk in same or the other stock markets at the global level.

The initial part of review includes the studies supporting weak form market efficiency in various stock markets around the world, whereas the later part includes the studies which do not accept random walk hypotheses in same or other stock markets in the world.

2.1. Studies Supporting Weak Form Market Efficiency

There are a number of studies which supported weak form market efficiency like Sharma and Kennedy (1977), who evaluated the stock indices of Bombay, London and NYSE during the period 1963 to 1973 using run test and spectral analysis and both the tests confirmed the random movement of stock indices for all the three stock exchanges. Then, Barnes (1986) tested weak form market efficiency for Kaula Lumpur Stock Exchange (KLSE). The data consisted of thirty companies and six sectors for the time period of six years ended in 1980 by using serial correlation coefficient test, run test and spectral analysis and concluded that the KLSE exhibits a high degree of efficiency in the weak-form. Though the findings suggest the market is generally weak form efficient, patches of inefficiency observed for shares that suffer liquidity problem. In another study, Annuar et al. (1991) also investigated KLSE over the period from January 1977 to May 1989 using monthly and weekly data by employing serial correlation and unit root test. The results of the study were found to be consistent with unit root, therefore concluding that the KLSE is efficient in weak form. Lee (1992) examined the random walk process for the period 1967-1988 for weekly stock returns of the US and ten other industrialized countries. A variance ratio test was employed for the analysis and found that the random walk model is appropriate for majority of countries forming sample of research. Urrutia (1995) observed four Latin American emerging markets for both market efficiency and random walk hypotheses using monthly data of index prices from the period of December 1975 to March 1991. He used LOMAC's single variance ratio test for the purpose and based on the results, he concluded that all the four Latin American emerging stock markets were weak form efficient and exhibit dynamics that were inconsistent with the random walk hypothesis. Similarly, Al-Loughani and Chappell (1997) studied the London stock market using GARCH model, BDS test and autocorrelation function. The random walk hypothesis was rejected for London stock market. However, the hypothesis of

weak form market efficiency cannot be rejected. Karemera et al. (1999) examined the random walk hypothesis for fifteen emerging stock markets using multiple variance ratio tests and run test. Their results supported the evidence provide by Urrutia (1995) who found Argentina, Brazil and Mexico to be weak form efficient.

Rahman et al. (2004) evaluated Dhaka Stock Exchange (DSE) for the existence of weak form for the period of January 31, 1990 to September 30, 2003 using monthly index time series. For such evaluation, unit root tests (ADF and PP) were used and the results supported the hypothesis that DSE index time series contains unit root which implies the existence of weak form market efficiency in DSE. Akinkugbe (2005) explored Botswana stock exchange (BSE) for weak form of efficient market hypotheses using 738 weekly observations for the period of June 1989 to December 2003. Autocorrelation and unit root (ADF and PP) were used to test the weak form efficiency in BSE. The autocorrelation test does not evidenced serial correlation and the result of both unit root tests indicated a stationary process for stock returns. Therefore, it implied that stock markets in Botswana were efficient in weak form. Omran et al. (2006) investigated the validity of the random walk hypothesis and tested for calendar effects in five major Middle Eastern emerging markets, by applying a range of statistical and econometrics techniques such as run test, autocorrelation function, box-pierce test and unit root test for testing the random walk and kruskal-wallis test for testing the calendar (day of the week) effect. The results confirmed that Israel's TA-100 stock market shows greater support for the random walk hypotheses (RWH) compared with the other markets in the sample. With regard to calendar effects, there were anomalies found related to day of the week effects which do not appear to be related to the pattern of trading days over the week, and which might be accounted for by other institutional factors specific to the countries in the sample. Asiri (2008) used cross sectional time series data for forty listed companies in Bahrain Stock Exchange (BSE) over the period from June 1, 1990 to December 31, 2000 to study the behavior of stock prices in BSE. Random walk models such as unit root and dickey-fuller test were used as basic stochastic tests for non-stationarity of daily prices for all listed companies in BSE and autoregressive integrated moving average (ARIMA) and exponential smoothing method were also used. The results confirmed random walk for all daily stock prices and thus the market is considered efficient in weak form. Chigozie (2009) investigated whether the Nigerian stock market, from period 1984 to 2006, follows random walk. To carry out the investigation the GARCH model was employed and the result showed that the Nigerian stock market follows a random walk and therefore weak form efficient. Mahmood et al. (2010) tried to examine the impact of recent financial crisis on the efficiency of Chinese stock market by dividing the stock price data from Shanghai and Shenzhen stock market for the period of six years, starting from January 2004 to December 2009, into two sub-periods, i.e. before crisis and during crisis period. The sample data was analyzed by applying Runs test, Variance Ratio test, Durbin-Watson test and Unit Root (ADF) test and it was concluded that the Chinese stock market was weak form efficient and global financial crisis has no significant impact on the efficiency of Chinese stock market.

There are number of studies wherein researchers tried to test the Indian stock market's behavior in terms of stock market efficiency. Such researches includes the studies done by Bhaumik (1997), Rao and Shankaraiah (2003), Samanta (2004) and Sharma and Mahendru (2009), who have tested BSE in India by means of various econometric tests and concluded that the BSE is weak form efficient and returns of BSE follows random walk. Ramasastri (1999) as well as Pant and Bishnoi (2002) have also used autocorrelation function, unit root test and variance ratio to examine the random walk hypothesis for Indian stock market. On the basis of the test results, they concluded that Indian stock market follows random walk and thus efficient in weak form.

2. 2. Studies Not Supporting Weak Form Market Efficiency

Gandhi et al. (1980) used monthly data for shares and industrial indices from Kuwait Stock Exchange (KSE) for the period starting from December 1975 to May 1978 and found that both, simple linear regressions of returns on lagged returns and run test for autoregression rejected the random walk hypothesis for KSE. Laurence (1986) tested both on the Kuala Lumpur Stock Exchange (KLSE) for the period from June 1973 through December 1978 and the Stock Exchange of Singapore (SES) for January 1973 to February 1979. Serial correlation and run test were employed for the purpose of testing weak form market efficiency and the results of these tests suggested that both markets are not weak form efficient. There are very few studies done on African markets which do not support random walk hypotheses such as the study done by Parkinson (1987), who examined the validity of the weak-form efficiency for the Nairobi Stock Exchange (NSE) using monthly prices of individual companies for the period 1974 to 1978 and found that the random walk hypothesis was rejected for NSE. Lo and MacKinlay (1988) strongly rejected random walk model for a sample of 1216 weekly observations of firms in the NYSE-AMEX over the period 1962-1985. Frennberg and Hansson (1993) examined the random walk hypothesis on set of monthly data for the Swedish stock market for 1919-1990 using variance ratio test and autoregression of multiperiod returns. They found that the Swedish markets have not followed random walk in past 72 years and strong evidences of positive autocorrelated returns were also found for short investment horizons whereas, for long investment horizons indication of negative autocorrelation was there. In the same manner, Al-Loughani (1995) employed variance ratio test, run test and autocorrelation test with weekly data for the Kuwait Stock Exchange (KSE) for the period beginning on August 27, 1986 to August 1, 1990. The results of run test and autocorrelation test were found to be consistent with the random walk hypothesis, whereas this hypothesis was rejected for variance ratio test. Darrat and Zhong (2000) investigated Chinese stock exchanges (Shanghai and Shenzhen) for random walk model. Two different approaches, the standard variance ratio test and a model comparison test were used for such investigation, and the random walk hypothesis was rejected for both Chinese stock markets.

Abraham et al. (2002) studied three major Gulf stock markets including Kuwait, Saudi Arabia, and Bahrain using the variance ratio and run test for October 1992 to December 1998 for weak-form stock market efficiency in these markets. The results obtained from variance ratio test rejected the random walk hypothesis in all the three stock markets while same hypothesis was not rejected for the Saudi Arabia and Bahrain markets but for Kuwaiti composite index. Filis (2006) tested weak form efficiency for Athens Stock Exchange (ASE) for the years 2000-2002 using 500 daily observations of the FTSE/ASE 20 index. He had used run test, unit root test (ADF test) and Wilcoxon rank test. GARCH test was also used to check volatility clustering. The results support the evidence of weak form efficiency in ASE. In addition, evidences for volatility clustering were also found as the GARCH effect was significant. Mobarek et al. (2008) studied Bangladesh's Dhaka Stock Exchange (DSE) for the period 1988 to 2000. Non-parametric (KS and run test) and parametric (Autocorrelation, autoregressive model and ARIMA model) tests were used for testing the efficiency in DSE. Based on the results of these test, it was concluded that DSE is an independent market and follows the random walk. DSE was also tested for efficiency by Uddin and Khoda (2009) using daily closing prices of twenty three companies from pharmaceutical sector. They have employed unit root test, ADF test and PP test for the purpose and on the basis of analysis the null hypothesis for weak form has been rejected and it was concluded that the returns of DSE do not follow random walk. Awad and Daraghma (2009) examined the Palestine Security Exchange (PSE) at weak-level for 35 stocks listed in the market using serial correlation, unit root test (ADF and PP) and run test for the time period from January 1998 to October 2008 and suggested the weak form inefficiency in the return series of PSE.

Amongst number of studies conducted on stock markets in India that have rejected the null hypothesis

for weak form market efficiency are given as follows.

Choudhari (1991) used the serial correlation and run test on the 93 actively traded shares on Bombay Stock Exchange (BSE) for the period January 1988 to April 1990. The test study by Choudhari concluded that the market was not weak form efficient. Similar results were given by Poshakwale (1996), who examined the Bombay Stock Exchange (BSE) in India for weak form efficiency and day of the week effect using daily prices of BSE national index from January 1987 to October 1994. The author used KS one sample test, run test and serial correlation coefficient to test BSE and the results indicated that the sample distribution was not normal and the prices on BSE did not follow random walk. The day of week effect was also observed in BSE which shows that the average returns are different on each day of the week and the returns achieved on Friday are significantly higher compared to rest of the days of the week. Ahmad et al. (2006) obtained similar results on testing the weak form efficiency for two major equity markets in India i.e. BSE and NSE for the period of 1999-2004. The data was divided into two sub-periods to have better results and various econometric techniques are used like unit root test (ADF and PP), Autocorrelation function, Ljung-Box (Q) statistics, GARCH model, run test and KS test. The random walk hypothesis for the Nifty and the Sensex stock indices is rejected and it was found that both the stock markets have become relatively more inefficient in the recent periods, and have high and increasing volatility. On testing the weak form efficiency in framework of random walk hypothesis for the two major equity markets in India i.e. BSE and NSE for the period 1991 to 2006, Gupta and Basu (2007) found that the series do not follow random walk model and thus the hypothesis for weak form market efficiency was rejected. Runs test, LOMAC variance ratio test and unit root test (ADF, PP, KPSS) were used to test the weak form efficiency and random walk hypothesis.

3. Rationale and Scope of Study

Since there are three forms of market efficiency, but working on all the three forms is not possible in this paper because of unavailability of the data and usefulness of the results for attaining the objectives of the study. Testing the strong form of market efficiency is not possible on account of data unavailability because it considers private or insider information which is not easily accessible, and the results of testing semi-strong form does not measures the randomness in the market returns, which is only possible through testing the weak form of market efficiency. Our objective is to test the effect of financial crisis on the randomness in the market returns, which is possible by testing market efficiency in weak form. Moreover, valuation of securities is an important function of financial markets which leads to the formation of trading strategies for the traders and investors dealing in these markets. The valuation of securities is required to identify the behavior of the markets, which is again possible by knowing the status of efficiency in the stock market. Furthermore, arbitrage is possible only if the markets are inefficient. If the markets are efficient in weak form, buying the undervalued securities and selling them into the markets, where securities are fairly valued or overvalued, is not possible. This makes it difficult for the investors to earn abnormal profits on trading in such markets. Hence, weak form market efficiency leads to the decisions related to buying and selling of the undervalued or overvalued securities on right time.

4. Objective

The aim of this paper is to understand the nature of the Indian stock market by testing the randomness in the daily market returns and to study the impact of recent financial crisis. Randomness in stock returns is possible only if market is efficient in weak form. Hence, the objective of this paper is to check whether Indian stock market follows random walk which can be confirmed by testing weak form market efficiency. For this purpose, daily closing prices of S&P CNX Nifty from NSE and BSE Sensex from BSE are taken. The BSE and NSE are considered for the studying the Indian stock market because of their popularity around the world so as to represent the Indian

financial market. We have used the daily closing prices of S&P CNX Nifty from NSE and BSE Sensex from BSE for the period of 10 years. In order to see the impact of recent financial crisis and have time varying results, the total data is divided into two equal sub-periods. We assume the sample period is sufficient to evaluate the information asymmetry especially after the huge Foreign Institutional Investors investments in stock markets, sub-prime crisis disorder and the recent financial crisis.

5. Data and Research Methodology

The Indian capital markets are represented by the one index each from National Stock Exchange (NSE) and the Bombay stock Exchange (BSE). The data for the present study consist of daily closing prices of the indices taken for the study. The data is collected for last ten years starting from 01/11/2000 to 31/10/2010. The data set is obtained from the PROWESS, the CMIE database. In order to determine the state of efficiency in Indian stock market, with special reference to recent financial crisis, the total time period is divided into two sub-periods: one before global financial crisis (Period-I from 01/11/2000 to 31/10/2005) and another one during financial crisis (Period-II from 01/11/2005 to 31/10/2010).

Following methods shall be used to test the time series data for normality, random walk, stationarity and autocorrelation function:

Jarque-Bera (JB) Test is used to measure the normality of the distribution. The results of skewness and kurtosis, which are also used to test the normality, are verified by the JB test. So, JB test is the test of joint hypothesis that skewness and kurtosis are zero and three respectively. The value of JB statistic is calculated by using the following equation:

$$JB = n\ [S^2/6 + (K-3)^2/24]$$

The conclusion can also be drawn on the basis of probability value. If the value of probability is more that 0.05 at 5% level of significance, we accept the null hypothesis for normality and can be concluded that the observed series follows normal distribution.

Kolmogorov-Smirnov (KS) Test is a well accepted goodness of fit test. It compares the observed cumulative distribution function for a variable with a specified theoretical distribution which may be normal, uniform, poisson or exponential. It determines that how well a random sample of data fits a particular distribution. It checks whether the observations have come from the specified distribution.

Run Test is used to test randomness of the time series. The null hypothesis of the test is that the observed series is random variable. When the Z value is more than $\pm$ 1.96 at 5 percent level of significance, the test rejects the null hypothesis. The test is non-parametric and is independent of the normality and constant variance of data.

Unit Root Test is used to test the stationarity of time series data and to find out whether a time series variable is non-stationary. The most popular unit root tests used to test the stationarity are the Augmented Dickey-Fuller (ADF) test and Phillips-Perron (PP) test. Both tests use the existence of a unit root as the null hypothesis. If the series is non-stationary and the first difference of the series is stationary, the series contains a unit root.

Autocorrelation Function (ACF) is used to determine the correlation of series with itself. It measures the amount of linear dependence between observations in a time series that are separated by lag. The ACF shows the pattern of autocorrelation present in time series as well as the extent to which current values of the series are related to various lags of the past data. ACF shows whether the serial correlation is significantly different from zero. In an efficient market, existence of zero autocorrelation forms the null hypothesis.

Return of the indexes are used to conduct the run test, normality test and autocorrelation for the time series, Daily return has been calculated as follows by taking the natural logarithm of the daily closing price relatives.

$$r = \ln\ (P_t/P_{t-1})$$

It may also be noted that the price of the indexes are used to test the stationarity.

6. Analysis and Findings

6.1 Descriptive Statistics

The descriptive statistics describes the characteristics of the data as the summary of descriptive statistic, which is provided in table 1 for both period-I and period-II. The sample means, median, maximum, standard deviation, skewness, kurtosis, Jarque-Bera statistics and probability value are given here under.

Table 1: Descriptive Statistics

	Period-I		Period-II	
	BSE	NSE	BSE	NSE
Mean	4554.935	1440.562	14309.74	4257.488
Median	3946.530	1248.950	14467.36	4291.100
Maximum	8799.960	2663.350	20873.33	6287.850
Minimum	2600.120	854.2000	7944.100	2386.750
Std. Dev.	1501.642	448.7140	3252.326	968.7726
Skewness	0.805417	0.737581	-0.105559	-0.008327
Kurtosis	2.551511	2.344944	2.021163	2.000515
Jarque-Bera	145.2718	135.3619	51.34619	51.16979
Probability	0.000000	0.000000	0.000000	0.000000
Observations	1247	1247	1229	1229

From the data of period I, it is clearly seen that BSE has the higher value in terms of mean, median, maximum price, minimum price and standard deviation while these values are lower in case of NSE's S&P CNX NIFTY. The higher value of standard deviation explains that the BSE is considered to be more volatile market as compared to NSE. The values of skewness and kurtosis reveal that both markets do not follow normal distribution, which is further verified by the value of Jarque-Bera statistic and probability value.

Data for period-II also gives the same result as given in period-I, therefore, it can be concluded BSE is more volatile in period-II as well. However, the volatility, for both the markets, has increased simultaneously during the period of financial crisis. But, both the markets still not follow normal distribution as explained by the values of skewness, kurtosis and Jarque-Bera statistic.

6.2 One-Sample Kolmogorov-Smirnov Test

The KS one sample test compares the cumulative distribution function for variable with a uniform or normal distribution and tests whether the observation have come from the specified distribution. Table 2 shows the results of KS test for period-I and period-II respectively.

Table 2: One-Sample Kolmogorov-Smirnov Test (Period - I & II)

		Period-I		Period-II	
		BSE	NSE	BSE	NSE
N		1246	1246	1228	1228
Most Extreme Differences	Absolute	0.052	0.058	0.088	0.082
	Positive	0.052	0.058	0.088	0.082
	Negative	-0.048	-0.047	-0.067	-0.066
Kolmogorov-Smirnov Z		1.832	2.050	3.087	2.858
Asymp. Sig. (2-tailed)		0.002	0.000	0.000	0.000

Test distribution is Normal

As given in period-II, that in period-I, returns of both the markets, NSE and BSE do not follow normal distribution as the value of probability is less that 0.05 at 5 percent level of significance and null hypothesis of normal distribution for both the markets are therefore rejected. Data of period-II indicates that there is no change in status of both markets during the period of financial crisis. Further, the frequency distributions of both the markets do not fit normal distribution. Hence, the returns are not found to be normally distributed.

6.3 Run Test

The results of run test are given in the following tables. Table 3 gives the values of run test for period-I i.e. the period before crisis and the value for period-II i.e. the period of recent financial crisis.

Table 3: Run Test (Period - I & II)

	Period - I		Period - II	
	BSE	NSE	BSE	NSE
Test Value[a]	0.00	0.00	0.00	0.00
Cases < Test Value	623	623	614	614
Cases >= Test Value	623	623	614	614
Total Cases	1246	1246	1228	1228
Number of Runs	559	567	601	601
Z	-3.684	-3.231	-0.799	-0.799
Asymp. Sig. (2-tailed)	0.000	0.001	0.424	0.424

a. Median

From period-I, it can be make out that Z values are more than + 1.96, therefore, null hypothesis for the run test is rejected at 5 percent level of significance for the period before crisis. Hence, it can be concluded that both the series do not follow random walk over the time of study and for this reason both NSE and BSE are considered to be weak form inefficient.

The run test for period-II shows the sign of efficiency because the value of Z statistic are less than + 1.96 at 5 percent level of significance. Thus, the markets are expected to follow random walk. So, it can be easily make out from the results that the state of efficiency has changed as the impact of recent financial crisis in the Indian stock markets. The markets have become efficient during the time period of recent financial crisis. It is interesting to note that in period-II the values of run test for both the market are similar thus it can be perceived that both the markets have shown similar drift in period-II irrespective of their performance in period-I.

6.4 Unit Root Test

The unit root test is used to test the existence of non-staionarity in the time series data. If the series is non-stationary in level form and stationary in first difference form, then it is expected that the series contains unit root. The results of two tests are given in following part. The null hypothesis of unit root states that the series is does not contain unit root.

6.4.1 Augmented Dickey-Fuller (ADF) Test

The results of ADFAugmented Dickey-Fuller Test of unit root are given in table 4a for period before crisis (period-I) and in table 4b for the period during crisis (period-II).

Table 4a: Unit Root Test (Period - I)

Augmented Dickey-Fuller (ADF) Test

	Level			First difference		
Symbol	Lag length	ADF statistic	p-value	Lag length	ADF statistic	p-value
BSE	4	0.557775	0.9886	3	-15.81881	0.0000
NSE	4	0.165287	0.9703	3	-15.86687	0.0000

Exogenous: Constant

Lag Length: Automatic based on SIC, MAXLAG=4

*MacKinnon (1996) one-sided p-values.

Deterministic terms: Intercept

Values in table 4a exhibit that the null hypothesis of unit root cannot be rejected for both BSE and NSE as it can be seen from the table values that both series are non-stationary in level form but are stationary in first difference form, which implies that the series contains unit root. Therefore, the markets do not follow random walk and are considered to be weak form inefficient in before crisis period.

Table 4b: Unit Root Test (Period - II)

Augmented Dickey-Fuller (ADF) Test

	Level			First difference		
Symbol	Lag length	ADF statistic	p-value	Lag length	ADF statistic	p-value
BSE	0	-1.547277	0.5093	0	-32.50305	0.0000
NSE	0	-1.504393	0.5313	0	-33.15154	0.0000

Exogenous: Constant

Lag Length: Automatic based on SIC, MAXLAG=4

*MacKinnon (1996) one-sided p-values.

Deterministic terms: Intercept

The results do not vary in the period-II. It can be seen from the values given in table 4b that during recent financial crisis the condition of markets remained same, i.e. daily price series are non-stationary in level form but stationary in first difference form. Hence, in period-II also the markets do not follow random walk and considered to be weak form inefficient.

Phillips-Perron (PP) Test

PP test is another way of testing the stationarity in time series data. The results of PP test for period before crisis (period-I) and the period during crisis (period-II) are given in table 5a and table 5b respectively.

Table 5a: Unit Root Test (Period - I)

Phillips-Perron (PP) Test

	Level			First difference		
Symbol	Bandwidth	P-P test statistic	p-value	Bandwidth	P-P test statistic	p-value
BSE	1	0.708657	0.9923	3	-31.62680	0.0000
NSE	3	0.345972	0.9806	5	-30.96579	0.0000

Exogenous: Constant

Bandwidth: Newey-West using Bartlett kernel

MacKinnon (1996) one-sided p-values

Deterministic terms: Intercept

It can be clearly seen from table 5a that null hypothesis for PP test is also rejected because in before crisis period, both series are non-stationary in level form but are stationary in first difference form, which implies that both BSE and NSE contains unit root. Thus, it can be concluded that the markets do not follow random walk and are considered to be inefficient in weak form in before crisis period.

Table 5b: Unit Root Test (Period - II)

Phillips-Perron (PP) Test

	Level			First difference		
Symbol	Bandwidth	P-P test statistic	p-value	Bandwidth	P-P test statistic	p-value
BSE	16	-1.604642	0.4799	19	-32.46163	0.0000
NSE	15	-1.556062	0.5048	18	-33.15054	0.0000

Exogenous: Constant

Bandwidth: Newey-West using Bartlett kernel

MacKinnon (1996) one-sided p-values

Deterministic terms: Intercept

As in the case of ADF test for period-II, the results do not vary for PP test also. Table 5b shows that behavior of market remained same during recent financial crisis. The daily price series for both BSE and NSE are non-stationary in level form but stationary in first difference form. That's why in period-II also the markets do not follow random walk and are inefficient in weak form.

Auto Correlation Function (ACF)

The ACF is used to determine the independence of stock price changes. It measures the amount of linear dependence between observations in time series that are separated by lag. The Ljung-Box (Q) statistic is used to test whether a group of autocorrelations are different from zero. The ACF and Q statistic of BSE and NSE for period-I and period-II are presented in table 6.

Table 6: Autocorrelation Function (Period - I & II)

Lags	Period - I				Period - II			
	BSE		NSE		BSE		NSE	
	ACF	Ljung-Box	ACF	Ljung-Box	ACF	Ljung-Box	ACF	Ljung-Box
1	0.094*	11.091	0.119*	17.577	0.070*	5.974	0.051*	3.181
2	-0.090*	21.259	-0.125*	37.202	-0.042	8.123	-0.026	3.999
3	0.016	21.598	0.036	38.786	-0.017	8.470	-0.014	4.255
4	0.101*	34.306	0.101*	51.584	-0.031	9.627	-0.020	4.773
5	0.010	34.433	0.014	51.834	-0.034	11.029	-0.031	5.966
6	-0.068*	40.212	-0.065*	57.149	-0.040	12.997	-0.048	8.865
7	-0.013	40.417	-0.032	58.417	0.019	13.452	0.029	9.891
8	-0.007	40.476	-0.025	59.204	0.085*	22.356	0.083*	18.424
9	0.049	43.456	0.051*	62.475	0.029	23.367	0.026	19.237
10	0.023	44.111	0.050*	65.617	0.012	23.541	0.000	19.237
11	0.017	44.464	0.008	65.700	-0.019	23.981	-0.027	20.135
12	-0.030	45.591	-0.049	68.778	0.014	24.235	0.021	20.678
13	0.014	45.825	0.028	69.790	0.046	26.922	0.052*	24.042
14	0.052*	49.175	0.055*	73.613	0.047	29.671	0.051*	27.251
15	-0.030	50.325	-0.032	74.897	0.010	29.797	0.014	27.479
16	-0.009	50.421	-0.028	75.918	0.017	30.151	0.026	28.353

*Significant at two standard errors at 1 percent level of significance.

According to the values of ACF presented in table 6, the values for BSE are found to be significant at lags 1,2,4,6 and 14 during the period before financial crisis. Thus, Ljung-Box or Q statistic rejects the null hypothesis of zero autocorrelation at one percent level of significance. The behavior of NSE in this period is found to be worse as compared to BSE because ACFs are significant at lags 1,2,4,6,9,10 and 14 and the Q test also rejects the null hypothesis of zero autocorrelation at one percent level of significance. Therefore, the ACFs for BSE and NSE are highly autocorrelated and it can be concluded that both BSE and NSE, both are considered to inefficient markets during the pre crisis period.

Table 6 also exhibits the ACF values for period during financial crisis and this period seems better as compared to pre crisis period because the figures indicate that, at lag 1 and 8 the ACF is found to be significant in case of BSE and for NSE, ACF is significant at lag 1,8,13 and 14. The Ljung-Box or Q statistic also rejects the null hypothesis of zero autocorrelation at 1 percent level of significance, which ultimately shows that both the markets, NSE and BSE are still inefficient in period-II but the situation has improved as compared to pre crisis period. Therefore, markets are less inefficient as it were in pre-crisis period, but still there is possibility of earning extra income on the account of market inefficiency.

7. Discussion

Since this type of studies are longitudinal in nature so new set of findings may be worked out by taking the data for different time periods. With the passage of time, new and interesting things might have cropped up in the markets which are required to be captured and presented before the important stakeholders. The uniqueness of this paper is to study the impact of recent financial crisis on Indian stock

markets by taking the data for latest ten years on daily basis and dividing it into two equal time periods i.e. before and during the financial crisis. All important tests have been used to justify the rationale of the paper and the conclusions drawn are interesting while we go through the findings of the paper. The present paper has added worth to the past literature of market efficiency by studying the impact of recent financial crisis on stock market efficiency in emerging market like India.

8. Conclusion

The efficiency in stock markets explains the extent to which the stock prices reflects all available information in the market and therefore by relying upon this information one can take decision about buying or selling the stocks. Relevant investment strategies could be adopted after deciding whether the market is efficient or not.

On the basis of empirical results given by various tests in previous section, we can conclude that Indian stock markets does not exhibit weak form market efficiency and thus do not follow random walk in both period-I and period-II. The recent financial crisis did not impact the behavior of Indian stock markets to a great extent. There is no significant difference in market efficiency in both periods however the efficiency has improved marginally in period-II compared to period-I. Thus, there are possibilities of earning extra income in Indian markets because abnormal returns are possible only when the market is inefficient as the future prices can be predicted using the past information. Thus, observation and the use of the past behavior of stock price movement may help investors in generating excess profits.

The practical implication of inefficiency in stock markets is that, it may lead to the variation in the expected returns of the securities. This is because the changes in prices would be more than expectation on arrival of some new information in the market. In the state of inefficiency, the share prices may not reflect the fair value of the stocks because of which the companies with lower fair value of shares may find it difficult to raise capital, which may disturb the investment pattern in the country in long-run. The condition of weak form market inefficiency may have positive impact on the financial innovation because the opportunity of earning abnormal profit may hike the short-run investments in the country.

As far as the future implication of the present research work is considered, the research work on stock markets done in past may be functional for the researchers who wish to work on the same subject line in future because these type of studies are persistent in nature. The observations, which are drawn from such studies conducted in one time period, may be helpful in justifying the studies of future researchers. In addition, the results of the past studies are contradictory in nature which is an inspiring reason for future researches in the same area.

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Samriddhii: Redesigning the Vegetable Supply Chain in Bihar [1]

Bhawna Anjaly and Vaibhav Bhamoriya

Introduction

"Samriddhii is a social initiative aimed at achieving the economic independence of the marginalized vegetable and fruit-growing farmers in Bihar. The purpose of Samriddhii is accomplished by re-engineering the (vegetable and fruit) supply chain by directly connecting the market place and the producers. Once the business model is established, Samriddhii is capable of creating livelihood opportunities to ensure economic empowerment of hitherto marginalized farmers in Bihar and in India". Kaushlendra Kumar, Founder and Managing Director of Knids Green Pvt. Ltd.

"We started our journey in January 2008, with a small outlet and a unique concept of selling vegetables through branded refrigerated push carts under the brand name of Samriddhii™." Kaushlendra Kumar, the Founder and Managing Director of Knids Green Pvt Ltd., a struggling start up, said with confidence.

According to Kaushlendra Kumar, "In the first three months of our operation in (2007-08), we crossed a turnover of Rs. 7,50,000. This increased to Rs. 85,50,000 in 2008-09. The turnover in 2009-10 was Rs. 2 Crores. In 2010-11 Samriddhii's projected a turnover of Rs. 4 Crores".

The sense of satisfaction and achievement in the voice of Kaushlendra was evident. He was reminded of the sunny day in 2007 when he was awarded an academic prize of Rs. 25,000 (roughly US$550) for topping Post Graduate Programme in Agribusiness in Management (PGP-ABM) 2007 batch in Indian Institute of Management Ahmedabad (IIMA).

To the surprise of many fellow participants, Kaushlendra declined several professional job opportunities made to him. Kaushlendra spent his entire prize money and the next few months in travelling extensively in villages of Bihar to explore how his vision of empowering poor marginal vegetable and fruit growing farmers of Bihar can be transformed into a reality. Kaushlendra could now recollect with confidence more than three years of his struggle in financially empowering the marginal farmers of Bihar (including resource poor vegetable growers, vegetable vendors, and farm laborers) and help them to face the future challenges in the emerging (global) economic environment in India.

Kaushalya Foundation - A Socio-Economic Initiative

Unlike most of his fellow participants in IIMA who preferred status conscious jobs with attractive compensation, Kaushlendra desired to do something extraordinary for the people of his state, and in general to the poor farmers of his country.

In 2007, Kaushalya Foundation[2] (KF), a non-government, non-profit organization, was created by Kaushlendra in the name of his mother Kaushalya, to address managerial issues related to poverty elevation by working closely with the people at the grassroots level.

Specific goals and objectives of the Foundation included:

- Organizing and professionalizing small and marginal farmers towards market oriented farming activities
- Organizing and professionalizing street vendors

1. This is a revised and enlarged version of the case prepared by Bhawna Anjaly and Vaibhav Bhamoria on the same topic. The revised version was prepared by Dr. M Ashraf Rizvi, Associate Professor, Indian Institute of Management Indore in cooperation with Dr. N.Ravichandran, Director, IIM Indore. IIM Indore cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

2. http://www.kaushalyafoundation.org/

and linking them to the main stream economic activities of the society

- Economic empowerment of street vendors and vegetable growers
- Connecting street vendors and growers to the mainstream market operations
- Generating livelihood opportunities, and creating market space for the poor farmers to provide them an identity and hence life with dignity
- Providing a broad range of social security measures and financial services to vegetable vendors and growers of Bihar state.

To enable poor and under-privileged members of the society, KF collaborated extensively with government institutions, financial institutions, market institutions, voluntary organisations, academic institutions, and research bodies working in the broad area of agriculture. All these interactions convinced Kaushlendra that some new innovative initiative is needed as a vehicle for KF to accomplish its goals and objectives. This resulted in the formulation of 'Samriddhii' on December 13, 2007

Samriddhii was a comprehensive vegetable supply chain system aimed to eliminate all intermediaries and middlemen in the existing distribution system and, therefore, benefit both the marginal (and usually poor) farmers as well as vendors. The purpose of this initiative was to re-engineer the value chain of vegetable production and distribution by organizing and mobilizing the informal and fragmented vegetable market segments and supply sources of Bihar. Samriddhi was positioned and developed as a brand that stood for fresh and high quality vegetables grown by farmers in the (holy) river Ganges' soil.

Kaushlendra Kumar - A Social Entrepreneur

Kaushlendra grew up in a family of three children in a village, 58 kilometers South East of Patna, the capital of Bihar, one of the three most populas states in India. His mother taught in a local school. His father farmed pulses, grains, and vegetables. Kaushlendra was sent to a government-run boarding school far away from home when he was merely eleven years old. He desired to stay at his home and be close to his family. But he was sent away to a boarding school because his parents felt that quality education (and hence a prosperous life) was more important than living together with family.

Kaushlendra went to Gujarat for his studies where he excelled academically. He spent 10 years (11-21 years of age) in Gujarat pursuing his studies. But he could never disassocaite himself emotionally from the sufferings of the poor marginalised farmers of his state. While studying engineering in Gujarat, he admired the prosperity of Gujarat farmers. The link, as he saw it, was that despite a more inhospitable environment, Gujarat farmers were connected to the market, and there was always someone to buy and sell what they grew. The situation in his native state Bihar was, however, fundamentally different.

When Kaushlendra decided to do something to make a positive change in Bihar, many were skeptical about his plans for transforming Bihar's agricultural sector. Locals gossiped that he had crushed his family's dreams and would have no way and means to repay them for all that they had invested in his education. For Kaushlendra, starting a venture of his own to help the poor farmers of his region was far more important than getting a lucrative job and making only his family prosperous.

Economic Status of Farmers in Bihar

Although the state of Bihar is blanketed with fertile ground and fed with abundant number of rivers and streams, it continued to remain as one of the poorest states in India. It is the 12th largest state in India in terms of geographical size at 38,202 sq mi (94,163 km²) and 3rd largest by population with 103,804,637 (Males: 54,185,347; Females: 49,619,290)[3]. Close to 85% of its population lived in villages. Bihar is located mid-way between West Bengal in the east and Uttar Pradesh in the west. It is bounded by the country of Nepal to the north and by Jharkhand to the south (Exhibit 2).

The Bihar plain is divided into two parts by the river Ganges which flowed through the middle of Bihar

3. http://www.brandbihar.com/english/bihar_census_2011.html

from west to east. Bihar has a notified forest area of 6,764.14 km², which is 6.8% of its geographical area. The landscape is lush and the population is dense. However, the agricultural productivity is low. The farmers are overexploited. Majority of the farmers working in the cultivated areas did not own the land on which they toiled. As the land ownership remained with the landlords on paper, the poor farmers could never avail government subsidies and other benefits meant for them. As a result, the number of such small, marginal, and landless farmers continued to increase, and the exploitative practices continued unabated.

The poor farmers of Bihar are, thus, caught in a perpetual poverty trap. Factors such as the nature of farm tenancy, rising cost of cultivation, falling prices of farm commodities, scarcity of farming resources. inadequate credit availability for cultivation activities, and lack of adequate subsidy had led to the deteriorating economic conditions of these farmers. They are caught in a vicious (poverty) cycle as they did not have the necessary resources to get rid of poverty, which in turn manifested into many disadvantages for them. These disadvantages collectively worked in a cyclic process making it virtually impossible for these farmers to break the cycle.

The economic condition of vegetable and subsistence crop growers in Bihar is much worse. They are virtually at the bottom end of a long supply chain nested with intermediaries. In fact, there are at least six intermediaries between the original farmer and the final consumer; viz., a village-level aggregator, a transporter, a commission agent, a wholesale seller, a semi-wholesale-seller, and the roadside vegetable vendor (See Exhibit 3). Most of these intermediaries did not add any value to the final produce but earned a huge profit for just connecting the local farmer with vegetable vendors and their consumers. The farmers had to depend on these intermediaries if they wished to sell surplus produce outside their villages for cash. As vegetables were perishable, transporters often exploited the farmers by delaying transportation and, due to the fear of decomposition, the farmers were forced to sell their products at whatever prices intermediaries dictated.

In this exploitative process, the farmers on the one end remained poor while the vegetable vendors fared no better. By the time the farm produce was purchased by vegetable vendors, the prices were so high that there was very little room for any final mark up. In addition, as they operated in unauthorised spaces without appropriate vending licences they were held ransom by the local police and civic administration. Most of these vendors worked as long as 16 hours a day. Their profit margins were small. Also, they were forced to pay weekly taxes to the local mafia. As their produce began to perish at the end of the day in their open and unrefrigerated stalls, they were often left with no option but to slash prices.

Managing Challenges

Kaushlendra was familiar with the abysmal conditions of the poor farmers and the vegetable vendors in Bihar much before he joined IIM Ahmedabad's Post-graduate Programme in Agri-business Management (PGP-ABM), a very specific course designed to prepare professional managers, decision-makers and leaders for the agriculture, food, agribusiness, rural, and allied sectors'[4]. However, he knew very well that despite his intense desire to change the situation in Bihar and his learnings at the premier B-School, it wasn't going to be easy to improve the general situation and the economic welfare of the vegetable growing farmers in Bihar.

There were three main challenges. First, vegetable farmers as well as the vegetable vendors in Bihar were very unorganized and bringing them to a common platform would not be easy for Kaushlendra, who was no more a "local" as he lost touch with the local people outside his family. Second, the informal and fragmented vegetable supply chain needed complete reorientation with professionalism. This required talented people, and this led to the third challenge, which proved to be the most difficult to handle. He needed people to own his "dream" and

4. http://iimahd.ernet.in/programmes/pgp-abm/career-impact.html

turn it into a reality. Convincing talented people to work for him was challenging. Kaushlendra had nothing to offer to them except a "dream" of a better future, and he knew that selling dreams was never easy.

Kaushlendra ready to face these challenges, decided to create a system in which

- small-scale farmers received fair prices
- are evetually organized into producer groups
- supplying directly to local vegetable vendors and
- legitimise their roles in the supply chain

Reorganizing the Vegetable Sector

Mobilizing and organizing informal and fragmented vegetable sector (resource constrained vegetable growers, vegetable vendors, and farm laborers) proved to be a difficult and a tiring process for Kaushlendra. One of the biggest challenges that he faced was that he needed to win the trust of farmers without anything tangible to demonstrate to them. Though Kaushlendra tried hard to maintain links with his hometown even when he was pursuing education outside, it was difficult to find many local people to help him in his new venture. Several of his friends had left Bihar for greener pastures. Outside his family there were very few people who were his old contacts.

However, all this did not discourage Kaushlendra. He was inspired by Dr Verghese Kurien, who developed the Anand model of cooperative dairy development and thus engineered the White Revolution in India, to make India the largest milk producer in the world. Motivated by the cooperative model pioneered by Kurien (See Exhibit 4), Kaushlendra wanted to develop a comprehensive vegetable supply chain that would eliminate all the intermediaries and middlemen in the current system and would benefit both the producers as well as the vendors.

Kaushlendra visited *'mandis'* (vegetable markets) in Patna to collect information about potential demand. For assessing the availability or supply of vegetables, he reached out to small and marginal farmers of Patna and Nalanda districts. There were difficulties and uncertainties at both ends. First, the farmers were not ready to trust him and share information. They were more comfortable to trade with known "Biharis", and for the marginal farmers, Kaushlendra was not yet one among them as a trading partner. It took approximately nine months to convince some of the farmers to trade vegetables with him but only with some conditions. None of the farmers wanted to be the first one to deal with Kaushlendra. To overcome this, Kaushlendra convinced his elder brother 'Dhirendra Kumar' to become a virtual supplier of vegetables. This solved the first puzzle on the supply side.

Second, the vendors were hesitant to leave their established suppliers and switch over to Samriddhii as their trading partner. Just like the farmers, they found it difficult to trust him on commercial transactions. They had, however, been very open, warm, and encouraging when no commercial consideration was involved. On many occasions, Kaushlendra sold vegetables himself.

Over a period of time, due to sustained efforts, Kaushlendra's dedication to bring about a social transformation started paying off and business partners (both farmers and vendors) started noticing his commitment. Samriddhii made its first notable business transaction in December 2007. The evolution was neither easy nor free from financial risks and operational challenges. Some vendors never returned the credit they availed from Samriddhii. This led to credit overdues. However, a determined Kaushlendra meticulously followed his business principle of 'Never fight with any business partner', and restrained from hassling such vanishing vendors. Instead he carefully and gradually weeded them out of his supply system.

Business Model

Compared to standard commercial businesses, Samriddhii created and operated a very different business model. Kaushlendra started gathering groups of farmers and, in order to show them how much more they could benefit if they were directly connected to markets in cities far away, he rented

trucks, bought vegetables from farmers directly, and delivered the farm produce to vendors in town for sale to ultimate consumers.

It was widely believed that the vegetable supply chain in India suffered from endemic problems, such as fragmentation and manipulation by traders (Bhardwaj and Palaparthy, 2008)[5]. In India, an average vegetable vendor bought his vegetables from middlemen, who retained a margin of up to 50% of the consumer's price (Prasad and Prasad, 1995)[6].

These agents, who purchased vegetables from multiple farmers and arranged their transport from the rural heartlands to their own outlets, usually enjoyed significant clout among both vegetable producers and vendors by exploiting information asymmetry regarding the demand and supply of vegetables and their actual production. As the farmers lacked a stable pricing mechanism and marketing infrastructure, they were vulnerable to the buying power of intermediaries. Similarly, vendors were susceptible to the exploitative intermediaries, who often engaged in price gouging. This lead to irrational and inefficient market prices. The farmers and the vendors continued to struggle to make a decent living.

Kaushlendra wanted to break the monopoly of these intermediaries, by creating a business opportunity by organizing an unorganized vegetable market segment. In order to fulfill these objectives, he founded Knids Green Private Limited (KGPL) in 2008. Exhibit 1 captured an assessment of business potential in terms of scope and size of the vegetable market.

KGPL was a business initiative and was also a well-structured marketing move. A quick industry analysis revealed encouraging facts. The direct competition was with traditional vegetable supply chain and its middlemen, modern retail chains like Reliance Fresh, Namdhari Fresh, Food Bazaar, Spencer's, etc., and with new entrants in cash and carry segment like Wal-Mart, Metro etc. The indirect competition was with companies making ready to cook food and packaged food. KGPL had several strategic advantages over other players (See Exhibit 2).

As a company engaged in the marketing and supply chain management of vegetables, KGPL started operating through partnerships with farmers and vegetable vendors. KGPL started generating operating surplus through the direct sale of vegetables to consumers, sales to associated vegetable vendors, institutional sales to restaurants and advertising space-selling on panels of airconditioned vegetable carts. The scability of KGPL is summed up in Exhibit 3.

At the source centered in the rural areas of Bihar, the company coordinated with hundreds of farmers and farming clubs for procurement. Downstream, scattered vegetable vendors who once had to submit to the pressures of intermediaries now work in a coordinated way with the company that supplied branded and guaranteed-fresh produce. KGPL was managed by Kaushlendra and the parent organization, the Kaushalya Foundation. Due to effective and streamlined communication between all actors of the supply chain, costs were kept low, uncertainties reduced, resulting more cash surplus in the hands of the poor farmers and vendors.

Knids Green Pvt. Ltd. had been able to grow its association with vendors and the farmers who represented the two extreme ends of the vegetable supply chain. It had been able to expand its base in four districts of Bihar, namely, Patna, Nalanda, Bhojpur (Arrah), and Jahanabad. In these four districts, KGPL had a total supplier (vegetable growers) base of more than 3000 farmers, who were supplying vegetables to Samriddhii™ Grameen Kendra (SGK), located at different clusters of villages producing vegetables. It also had a base of over 500 vegetable vendors across Patna who were procuring vegetables from Samriddhii™ City Centers (SCC).

5. Bhardwaj, Sunil, and Indrani Palaparthy. 2008. Factors influencing Indian supply chains of fruits and vegetables: a literature review.
6. Prasad, Jagdish, and Arbind Prasad. 1995. Indian Agricultural Marketing: Emerging trends and perspectives.New Delhi: Mittal Publications.

The re-engineered Vegetable Supply Chain

The operations of the vegetable supply chain designed by Samriddhii from the producer to the customer (Exhibit 4 gives a pictorial representation of the process employed by Samriddhii) was simple but systematic. Vegetables were collected at village level from small and marginal farmers through SGK. Here the vegetables were graded and sorted before being transported to Distribution Center (DC). Vegetables brought at distribution center were again sorted and graded before being dispatched for Samriddhii City Centers.

The responsibility of SGK was to supply inputs, information to the people in addition to the procurement. SCC was established at each focal demand point. The primary function of SCC was to distribute vegetables to associated vegetable vendors and order processing (See Exhibit 4).

Further, in every village, five to six groups of a dozen or so farmers formed collection and knowledge sharing groups called Kisangaclubs. Each club elected a coordinator and two assistants who worked with Samriddhii as collection agents. Since most farmers and, in some cases, entire villages grew only one or two varieties of vegetables, Samriddhii extension workers have identified 20 profitable varieties that can be grown in the region. Through the use of mobile technology, they coordinated the Kisangaclubs and distribution centers to ensure steady demand for all produce grown by club members.

To stablise the value chain and the new initiative, Kaushlendra revived the extension services wing of the state's agricultural department. In the last 20 years (1990 - 2010), this department had become defunct. The state system was rife with dishonesty and several middlemen, for a commission, perpetuated the system where subsidies continued to flow to land-owing non-farmers. Over time by persuasion Kaushlendra converted many of these middlemen to socially accepted paid consultants who proactively helped the farmers to be aware of and learn how to access farm related subsidies. His team also conducted workshops to increase the interaction and interface between the state agriculture department staff and the farmers. A reward system was introduced to recognize the best agriculture staff based on their assessment by the farmers. This initiative gave the much needed acceptance, relevance, importance, and authority of power to the marginated poor farmers.

At the distribution centers, Samriddhii employed a number of jobless persons to sort and clean all the produce and distribute (the 20) vegetable varieties to their 800 registered vendors. These vendors (as well as member farmers) were given group membership cards and committed to basic group principles. This alone has been a huge step towards legitimizing these men and women and giving them more bargaining power in their interactions with local authorities.

In order to make vegetable vending more professional and profitable, Samriddhii assured the vendors that it would buyback leftover vegetables if vendors commit not to slash prices at the end of the day. They also reassured vendors to use time-stamped receipts so that all Samriddhii branded vegetable carts can offer a freshness guarantee. Consumers were guaranteed that produce they are buying has not been artificially colored and that was grown locally; the villages from which each item was sourced was posted. In the end, vendors improved their earnings, and prices remained competitive (even lower in most cases).

A significant new development introduced by Kaushlendra was a refrigerated vegetable cold cart. These carts had 20 compartments lined in packets of cooled ethylene glycol, the same chemical used in mobile ice cream carts and also to transport the polio vaccine. Every night the packets were returned to storerooms in ice manufacturing companies (with which Samriddhii has set up partnerships) so that when vendors pick up their carts in the morning from the distribution center, they are refilled with fresh vegetables and lined with recharged ethylene glycol packets, ensuring that produce stays cool and fresh for the next ten hours. While Samriddhii piloted this project with just ten of these carts in 2008, 50 more had been ordered in 2009.

Recruitment Challenges

Recruiting efficient and talented people to work for a (new) company like KGPL was difficult. It was more difficult in the first year of company's operation when the Indian economy was doing well. Everyone was looking up to a good-paying job. It was, therefore, very difficult to get people to work for modest payments in a start-up company. Anyone with a reasonable talent, skills, or education had either already migrated or was in the process of migrating to greener pastures outside (the state of) Bihar.

Some informal interactions and interviews with potential employees revealed that the reason was the mindset of people. Selling vegetables was still considered to be a menial job. Most of the people were unwilling to do a menial job until they became desperate for a job. This also meant an issue of low capability of the employee apart from low self-confidence. Kaushlendra found the hard way that adding to the woes is the fact that working in a start-up demands dedication and commitment.

The work culture and mindset of the people in Bihar was not very favourable to new companies and entrepreneurs. Most people preferred to go out of state to work as a rickshaw puller or do any menial job rather than selling vegetables in their hometown. They did not value work ethics much. Most of their working hours were not productive. The long-term perspectives related to opportunities were ignored. The attrition rate was as high as 70%. The sense of ownership of work was not present and workers tried to circumvent their responsibility. Despite being empowered with decision-making most employees behaved like clerks and hesitated to take decisions even when called for. The long-term growth perspective of both the individual and the business was traded off with the short-term considerations by such behaviour of the employees. This scenario had an adverse impact on the manpower available to any start-up and KGPL was no exception to that.

Growth Options

Learning from this experimentation, over the next few years Samriddhii planned to establish a complete cold chain from Bihar to Delhi and subsequently in the rest of the country. Kaushlendra was setting up partnerships with ice manufacturing companies all along the route between Patna and Delhi so that trucks carrying vegetables from Bihar to larger markets down south and north will be able to recharge refrigeration packets every seven to eight hours. Trucks using this technology were more environmentally friendly. The operating cost was less than fully refrigerated trucks.

There were twin approaches to redefining the vegetable supply chain. Kaushlendra remembered that for expansion they were trying to replicate the same model of direct coordination with farmers and vegetable vendors in Lucknow. They were also dispatching the consignment of 'Mangos' and 'Parwals' (Pointed Gourd) to the large vendors at Delhi. Organic forming , distribution of quality seeds extension services of some enabling mechanism introduced by KGPL.

Samriddhii™ was also expanding across different states. The first step to this direction has been an entry into the state of Uttar Pradesh through its subsidiary company, Orvem Marketing Pvt. (ORVEM) a 50:50 joint venture between Knids Green Pvt. Ltd. and a local partner from UP. This company was planning to implement the same business model of Samriddhii™ in Uttar Pradesh. ORVEM had already made its presence among the farmers of seven districts of Uttar Pradesh namely, Lucknow, Sitapur, Barabanki, Hardoi, Rae Bareilly, Unnao and Sultanpur. ORVEM was planning to launch its refrigerated push carts in the Lucknow town somewhere towards the end of the third quarter of the Financial Year 2010-2011.

To minimize wastage, KGPL was contemplating on an idea to open a vegetable-processing centre. As

Kaushlendra briefed his team about upcoming plans, he was wondering about managing the financial and human resource required for the same.

Locally, Kaushlendra was soon to begin sourcing produce from another region of Bihar, an area that has been cut off from Patna since a vital bridge over the Ganges was washed away in floods a few years ago. In fact, he had already organized 5,000 farmers in this region so that as the demand grew and more markets were opened in six major cities in Bihar and then Delhi, he would be able to quickly increase supply.

Farmers who were now organized into Kisangaclubs had the option of selling to large companies and competitors. And soon Samriddhii would begin processing and canning local tomatoes, ladyfingers, and a region-specific gourd variety. As Samriddhii grew, farmers and vendors in the region would continue to prosper and Kaushlendra's vision of transforming the river-rich parts of Bihar and then Jharkhand and Uttar Pradesh into India's vegetable supply hub would become a reality.

Exhibit 1 - Scope and Size of Vegetable Market

Region	Market Potential (MT)	Market Potential (INR Billion)	Target Market Potential (INR Billion)	Organized Players (Percentage)
Patna	1,21,000	1.69	1.05	4.27
Lucknow	1,66,000	2.90	1.74	2.50
Ranchi	38,620	0.62	0.34	-
Delhi	6,28,900	12.58	8.18	5
Mumbai	5,43,600	11.95	7.76	5
Kolkata	2,08,900	3.35	2.18	5
Hyderabad	2,96,811	5.34	2.93	5
Bhopal	65,420	1.31	0.72	-
Indore	72,880	1.45	0.80	-
Pune	1,16,000	2.86	1.86	2.5

Source:KGPL

Exhibit 2 - Strategic Advantages of KGPL

Product / Process	Samriddhii™	Vending Carts	Unpackaged Vegetables	Traditional Supply Chain	Super Markets
Convenience	*				*
People Centric	*	*		*	
Assurance of Quality/Quantity	*				*
Professionalism	*				*
Inclusivity	*	*	*	*	
Cost Efficient	*	*	*		
Positive Social Impact	*			*	
Lower Wastage	*				*

Source:KGPL

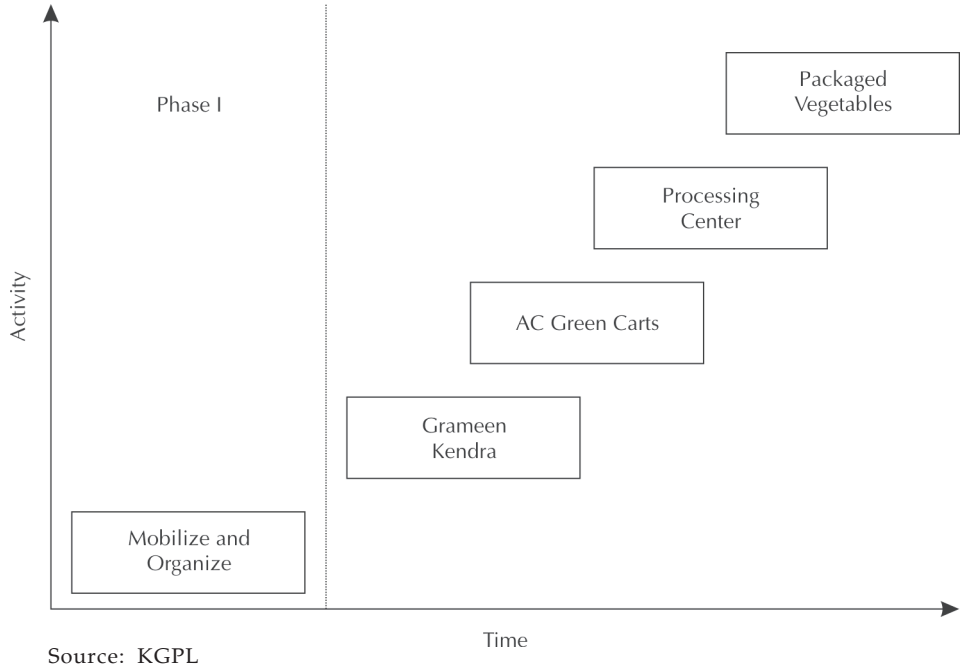
Exhibit 3 - Phases of the Enterprise

Phase-I:

- Mobilizing and Organizing the Vegetable Growers and Vendors

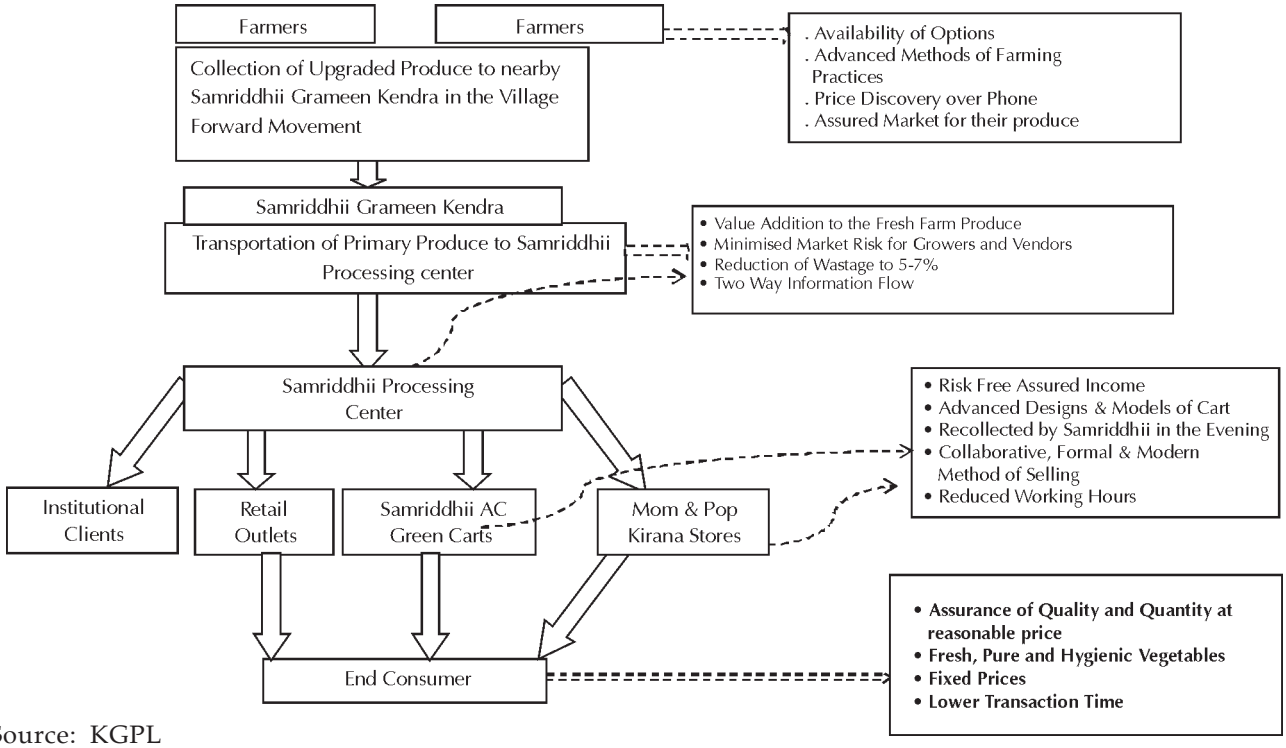
Phase-II:

- Establishment of Samriddhii™ Supply Chain Components:
  - Samriddhii™ Grameen Kendra:
  - The Primary Sorting/Grading cum Vegetable Collection center
  - Growers themselves become the partners,
  - Center for Capacity Building and act as Agri-Input Centers.
- Samriddhii™ AC Green Carts:
  - Point of Sales for Vendors
  - Become the owners of the Carts
  - Lower wastage of Vegetables and risk free income.
- Samriddhii™ Processing Center:
  - Sorting/Grading cum Packaging cum Distribution Center
  - Storage Space for 2-3 Days
- Samriddhii™ Packaged Vegetables:
  - Non-Adulterated, Pure, Fresh and Hygienic in Nature,
  - Better Customer Satisfaction and higher turnover for the vendors.



Source: KGPL

Exhibit 4 - Business Model of Samriddhii



Source: KGPL

Exhibit 5 - Financial Performance of KGPL

Financial Year	Turnover (in Rs.)
2007-08 (Since January 2008)	7,58,580
2008-09	85,58,885
2009-10	2,08,81,641
20010-11 (Provisional For First 2 Quarters)	1,84,73,548

Source: KGPL

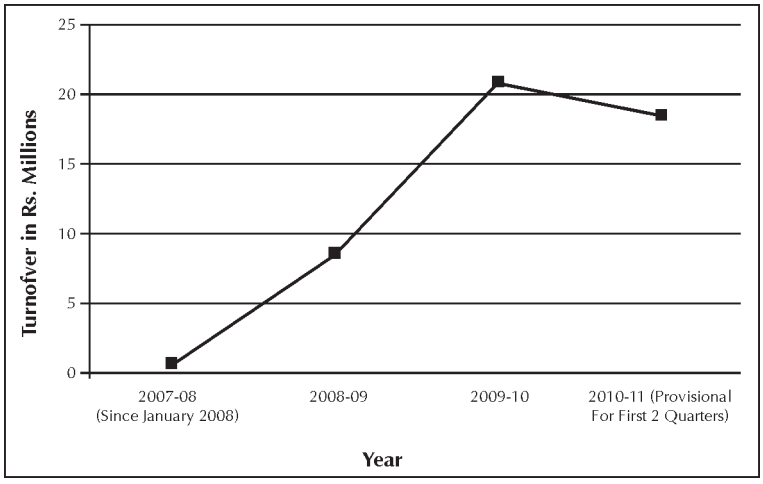
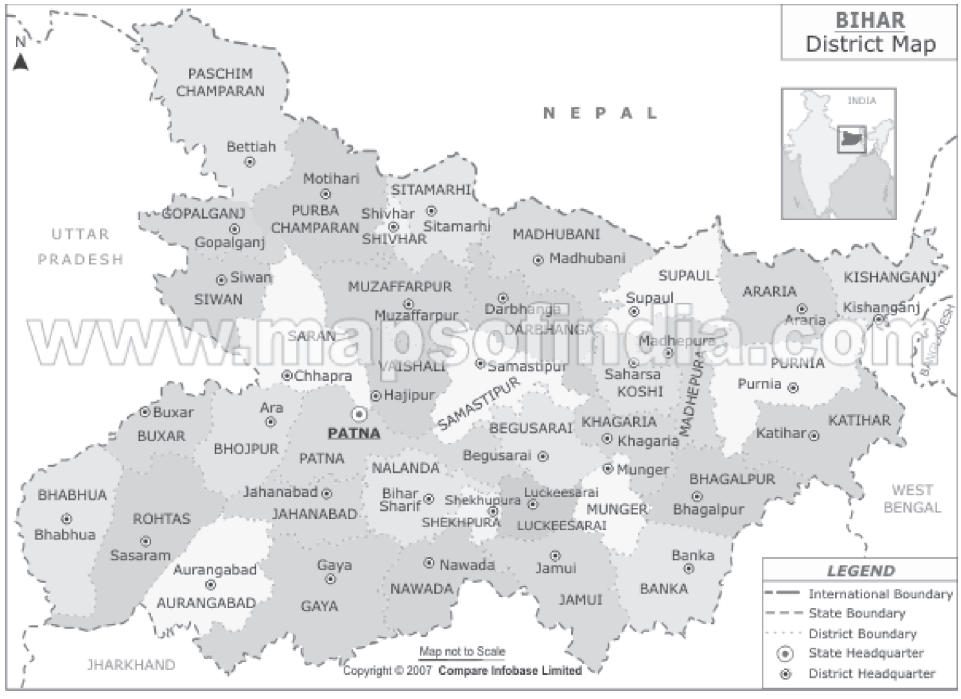
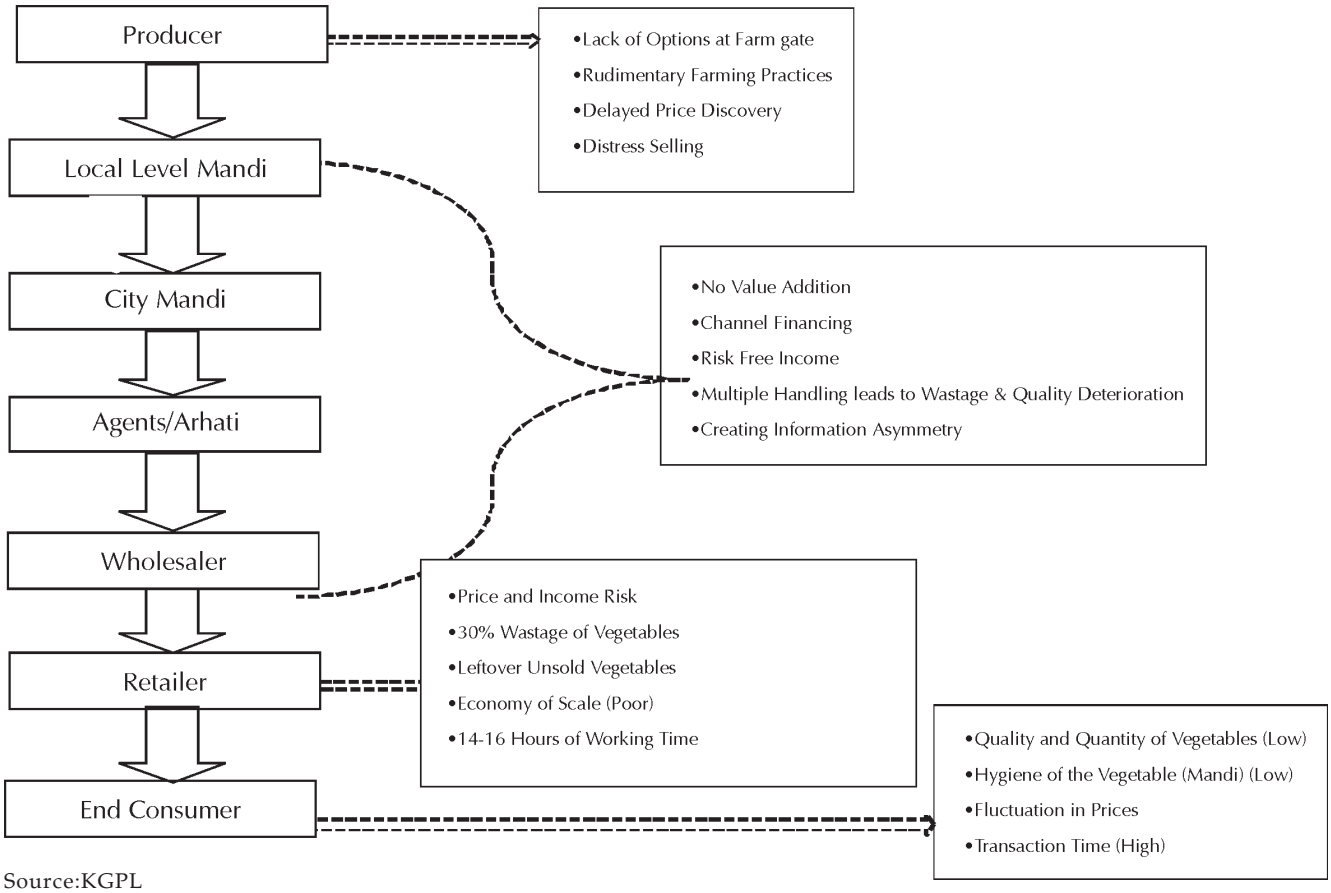


Exhibit 6 - Map of Bihar



Source: www.mapsofindia.com

Exhibit 7 - Traditional Vegetable Supply Chain in Bihar



Source:KGPL

Exhibit 8 - The Amul Model

Amul Dairy has been a successful change maker in India's dairy system. The Amul Model is a three-tier cooperative structure which consists of a Dairy Cooperative Society at the village level, a Milk Union at the District level, and a Milk Federation at the state level

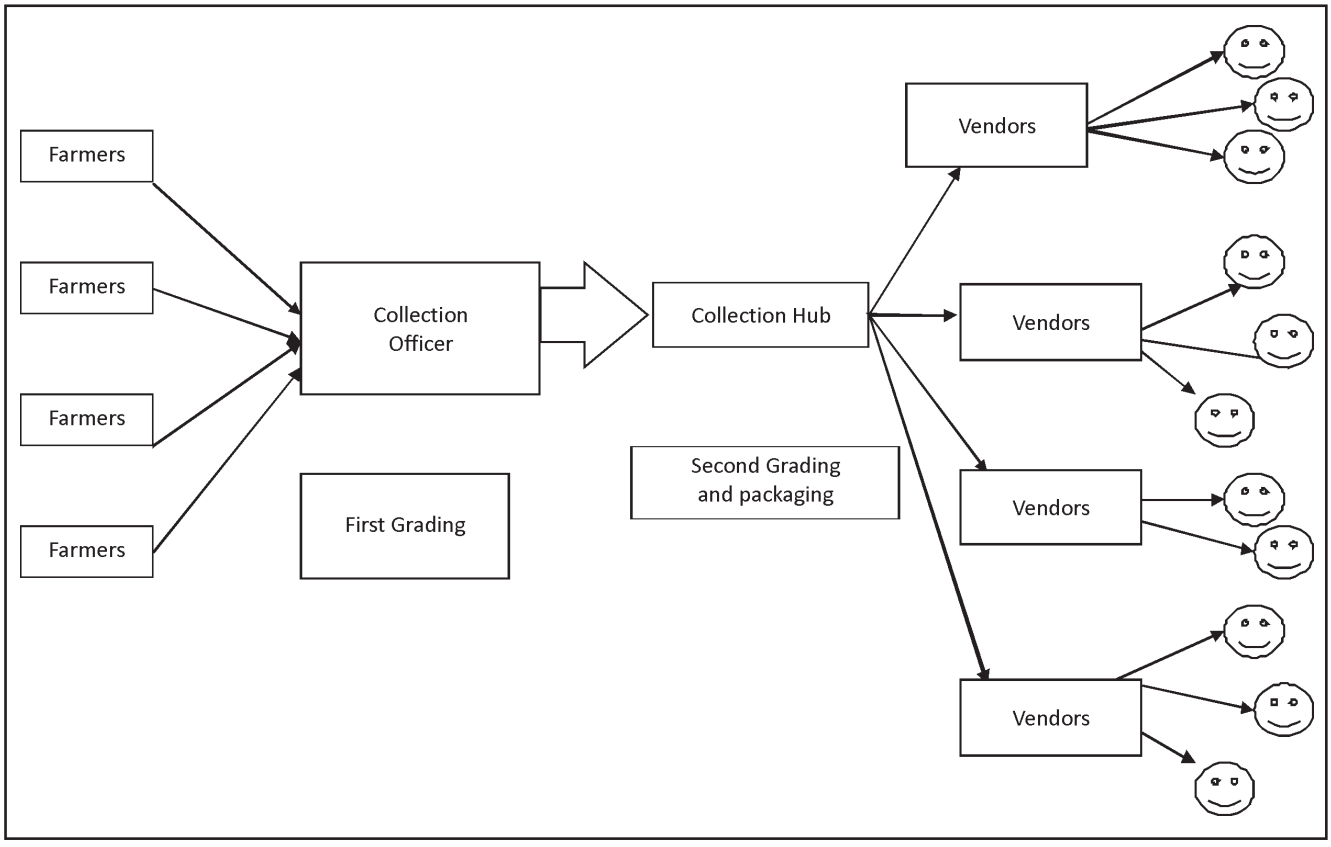
The Village Dairy Cooperative Society (VDCS) is the primary society having membership of milk producers of the village. It is governed by an elected Management Committee consisting of 9 to 12 elected representatives of the milk producers. The VDCS appoints a professional secretary for managing the day-to-day functions of the society as well a set of other people to assist him or her. The District Milk Union, the second tier under the three-tier structure, has membership of Village Dairy Societies of the District and is governed by a Board of Directors consisting of 9 to 18 elected representatives of the Village Societies. The Milk Union further appoints a professional Managing Director for managing the day-to-day functions of the union as well a set of other people to assist him or her. The Milk Unions of a State are federated into a State Cooperative Milk Federation. The Federation is the apex tier under the three-tier structure.

The above three-tier structure was set-up in order to delegate the various functions, milk collection is done at the Village Dairy Society, Milk Procurement and Processing at the District Milk Union and Milk and Milk Products Marketing at the State Milk Federation. This helped in eliminating not only internal

competition but also ensuring that economies of scale is achieved. As the above structure was first evolved at Amul in Gujarat and thereafter replicated all over the country under the Operation Flood Programme, it is known as the 'Amul Model' or 'Anand Pattern' of Dairy Cooperatives.

Source: HBS Case, Amul and India's National Diary development Board, 9-599-060

Exhibit 9 - Process Flow of Operations



Source:KGPL

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CASE COMMENTARY

Samriddhii: Redesigning the Vegetable Supply Chain in Bihar

Shubhabrata Basu

This case describes the endeavours of a budding entrepreneur, Kaushlendra, in mitigating the inefficiency driven discontinuities, in the primary sector of Bihar. A fresh management graduate from IIM Ahmedabad, Kaushlendra forfeited corporate aspirations in search of, and with desire to develop, his roots in the agricultural sector. Hailing from a farmer's family in the Patna district of Bihar, Kaushlendra left home early to pursue studies in the state of Gujarat. The relative prosperity of farmers in semi-arid Gujarat impressed Kaushlendra on the need to introspect and improve the condition of farmers home in Patna. While Bihar as a state is blessed with the rich alluvial deposits of the Gangetic system, the agricultural sector in stark contrast is fragmented, replete with marginal farmers, and prone to scale diseconomies. Further, there are multiple levels of intermediaries between the farmer and the vegetable vendor who ultimately sells the produce to the final consumer. Existence of intermediaries cause rent pilferages through inadequate bargaining resulting from information asymmetry. Further farm products being perishable, wastages also reduce the margin significantly. In the whole process, the farmers and the vendors are the worst hit although they add the maximum value to the whole supply chain. Having identified the source of leakage, Kaushlendra set about plugging the gap and ploughing back the profit to the two stake holders. His logic, a distinct reflection of his managerial training, was simple - organize the source and the sink and thus weed out the intermediate inefficiencies. However this was easier said than done.

The case, in describing Kaushlendra's efforts towards organization, has brought out several themes that define the entrepreneurial evolution. The first deals with the entrepreneurial legitimacy. An entrepreneur is perennially starved of resources and his/her ability to acquire and pool costly as well as free resource is a function of his legitimacy and market credibility. Legitimacy and credibility, in turn, are functions of proximity and association. The case shows, how Kaushlendra's absence from his native place, compromised his credibility and led to a Catch 22 situation in terms of business dealings. He had to circumvent the situation with the help of his brother, who in the process had to associate and identify himself with the vendors.

The second aspect in entrepreneurship deals with the desire of the protagonist to emerge as a full service provider, being present in all the segments and thereby compete with direct and indirect players. Kaushlendra, through a two phase process, had been able to build up the necessary infrastructure to bring in fresh, quality assured, vegetables to the final consumers. In the process he tied up with external agencies and adopted necessary technological means (usage of Ethylene Glycol packets) to preserve the perishable items thereby minimize wastes.

The third aspect of entrepreneurship deals with the social perspective through Kaushlendra's effort to revive the extension service wings of the State's agricultural department. The effort yielded two fold results. It sensitized the farmers on the various financial benefits, subsidies and the fair prices of their produce. It also helped some of the affected middle men to come on board and take up the cause of Kaushlendra on upliftment of farmers. In a sense, this echoes the concept of collaborating with competitors to win and or remain sustainable.

The fourth and final aspect of entrepreneurship, in a sense is an anti-thesis of Kaushlendra's efforts to

mitigate systemic leakage in the vegetable supply chain. An impartial view of KNID's activities and positioning in the value chain will reveal that Kaushlendra has all but replaced (or trying to replace) an inefficient set of intermediaries with an efficient one. In essence, Kaushlendra is nothing more than an efficient rent seeking intermediary. This has serious ramifications. So long Kaushlendra is able to show the prime actors, the farmer and the vendor, that his interventions have made them better off and will continue to do so over discrete time horizons, his business shall prosper. However, the same may be disrupted if a competitor with similar credentials emerge or competitors like Reliance Fresh or Namdhari Fresh focus and pursue backward integration more vigorously. Under such scenarios, his present stake holders, the farmers and vendors, with a new found appetite for prosperity and profit, may as well venture to greener pastures, thus jeopardizing Kaushlendra.

Having said so, under the present dispensation, given the extent of market fragmentation, the land holding pattern of farmers and the size of the market, there are ample scopes of accommodation and adjustment of players integrating and eliminating wastes in the vegetable supply chain from Bharat to India. Therefore, in all probability, Kaushlendra will co-exist with collaborators and competitors and prosper.

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Samriddhii: Redesigning the Vegetable Supply Chain in Bihar

Prashant Salwan

As per the estimates of Government of India, about 15% of the market value of food products reaches the farmers, compared to 67% in Europe. This case on Samriddhi: redesigning the vegetable supply chain in Bihar talks about the reasons and the solutions for the system.

For me this case had five major discussion points, first, this case talks about the internal motivation of the protagonist, second, the leadership skills required in the formulation and implementation of this type of projects, third, the ground realities in Bihar (problems, opportunities), fourth, the supply chain management and fifth, the empowerment of the weak.

Mr. Kaushlendra Kumar the protagonist in this case started Samriddhii for organizing the purposefully unorganized fruit and vegetable supply chain. He wanted not only to organize the supply chain but also to enable the farmers to earn higher incomes and subsequent social security. He also wanted his project to run by itself (self revenue generation). He had a sense of accomplishment when he took its organization from a modest turnover of 0.7 million Rupees to 25 million Rupees in a span of four years.

The journey was not easy for Kaushlendra in developing a comprehensive vegetable supply chain system. The first obstacle came in the form of confidence gap between the farmers, vendors and farm labors on one hand & he himself on the other hand. No trust was the first bottleneck he experienced. He managed this bottleneck innovatively and as the time went by, he proved that it means a business of trust, growth and sustained livelihood for the farmers and their families.

Bihar had all the natural strength but still the people were poor due to the vicious cycle of poverty. Tenancy ratio, rising cost of cultivation, falling prices, scarcity of resources, lack of availability of credit resulted in deteriorating conditions of farmers. This cycle could be broken only by committed holistic approach.

Mr. Kaushlendra Kumar found two major problems, faced by the farmers. First, dependence of farmers on intermediaries (transporters etc) and the perishable nature of the goods. He needs to create a chain, taking into consideration the perishable nature of the goods and cost at each stage. Second he had to reduce the intermediary's steps resulting in increasing bargaining power for the farmers in the value chain.

His first step was to create a platform where, the small scale farmers receive the fair price for their goods by supplying directly to the vegetable vendors. He hired trucks and developed necessary infrastructure for the same.

Mr. Kaushlendra Kumar knew that to further increase the value for farmers and the customers, he need to target the high value customers such as restaurants, large retail chains directly, and develop a brand in his products (organic farming, freshness etc). Mr. Kumar very meticulously developed the value preposition of his KNIDS Greens for its value added customers . He also developed many revenue streams through maximizing the usage of his resources (selling the space for advertisement on panels of air-conditioned vegetable carts).

His strategy of partnering with farmers and vegetable vendors helped in generating operating income. His strategy of owning a cart also helped in developing efficiency as well as helped in lower wastage of vegetables and risk free income. His value addition by packing the vegetables and print the place name where the vegetable was grown, provided the image of non-adulterated, fresh and hygienic nature of the products. These strategies further increase the willingness of customers to pay for the products.

After trust building among farmers, Mr. Kumar also destroy the advance methods of farming practices to the farmers. He sustained the confidence and trust through assured market for their produce and assured transparency through price discovery over phone.

One of the most interesting things Mr. Kumar did was to admit the problem-givers in the system as value-givers. Mr. Kumar converted many middlemen to social accepted paid consultants, who earlier thought that there revenue stream will vanish if comprehensive value chain is successful. Mr. Kumar made these middlemen use their knowledge in helping the farmers learn how to access subsidies and get their name on leases.

An important contribution of Mr. Kumar was that, he made the job of farming and working in vegetable supply chain respectable in the eyes of the society by charting a long term growth perspective for both the individual and the business. This strategy also helped in managing the crunch in human resource.

My comment is that Mr. Kumar is doing well in reducing the bottleneck in the supply chain of goods thus providing value to both the farmers and their customers, but the question is, its sustainability? Can we use this structure to market government projects and programs? There are many points of improvements such as becoming partners with employment projects, agriculture banks schemes, tie-up with agriculture universities, help the government learn about the problems and solutions through the supply structure.

Mr. Kumar need to develop a knowledge system where he can document the problems and solutions from the technology, agriculture and human resource point of view. We need to come together for removing these market imperfectness, which in turn might reduce corruptions in the system so that we can have fair value - both for the producers and the customers.

Prashant Salwan is a faculty in the Strategic Management Area at Indian Institute of Management Indore.

Samriddhii: Redesigning the Vegetable Supply Chain in Bihar

Gyan Prakash

Samriddhii demonstrates the successful redesign of traditional vegetable supply chain. Information pertaining to the financial as well as the customer base aspects reflect that embedded business model is economically viable[1], scalable[2] and replicable[3]. The traditional vegetable supply chain is fraught with many challenges. Following cause and effect diagram (fishbone diagram) depicts the existing difficulties in the current vegetable supply chain.

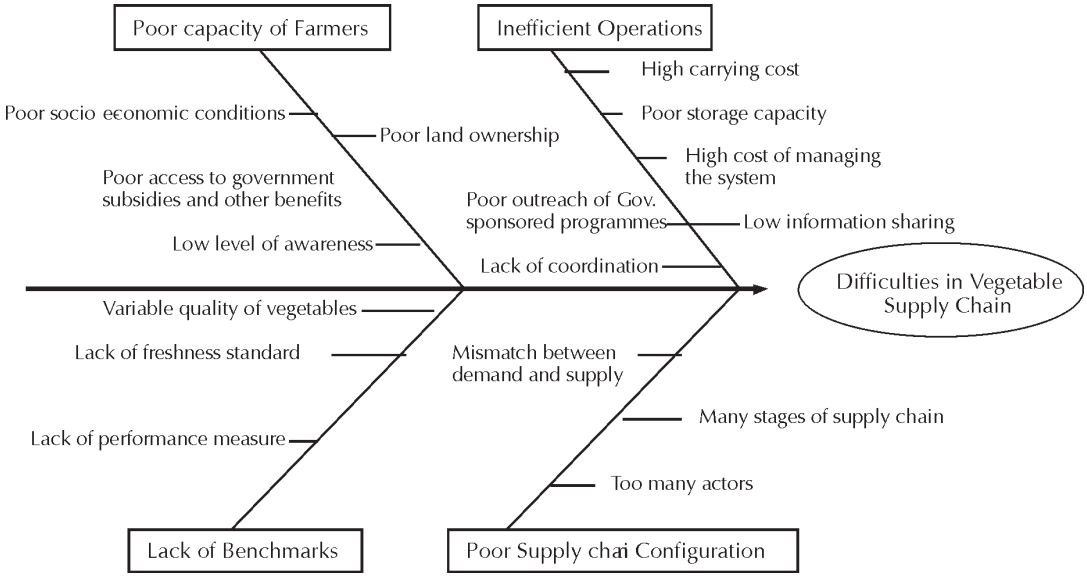

Figure 1: Cause and Effect Diagram Showing Difficulties in Vegetable Supply Chain

From supply chain perspective, the traditional vegetable supply chain is highly fragmented and the associated flows of vegetables, information, funds and embedded service is blurred. Some actors operate in almost independent manner and some operate as part of a cartel. These leads to cascading of effects culminating in fluctuations in the perceived demand and supply (i.e. Bullwhip effect) leading to poor resource management and supply-demand mismatch. The Samriddhii supply chain seems to address these challenges by taking cues from AMUL (cooperative based business model), Dell (elimination of intermediaries) and e-chaupal (linking farmers to market by providing dynamic agricultural and marketing information). The redesigned supply chain is depicted as follows.

1. Ability to self support. The initial profit making is encouraging however, proper business plan needs to be deigned by setting milestones and metrics and develop capabilities to adapt with change market conditions which will measure progress towards self-support and continuous profitability.
2. Ability to expand customer base either by attracting new customers or by selling more to existing customers.
3. Means the business model can be reproduced in a new location.

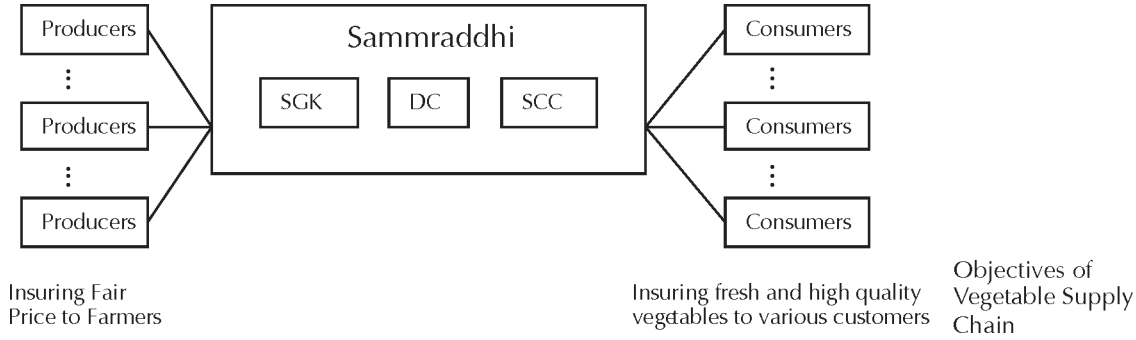

Figure 2: The Sammraddhii Vegetable Supply Chain

The redesigned supply chain eliminates non-value adding actors. Its streamlined processes ensure the two-way real-time flow of information and flow of vegetables through transportation system with inbuilt cold capabilities. The redesigned supply chain involves primarily procurement order cycle and customer order cycle. From the process perspective it is driven by pull based processes. The boundary between push and pull processes has been shifted towards the upstream side of the supply chain. The reconfigured supply chain focuses on overall value generation and facilitates the development of all actors. In this context development is both a process and an outcome. As process development means improving capacity of farmers by providing equitable access to information and know-how. This also involves building their ability to asses and interprets agricultural information. Development as outcome is reflected in enhanced level of income of farmers and their participation in collective activities.

In order to manage the performance of vegetable supply chain Samriddhii need to define key performance indicators (KPIs). As depicted in Table 1 these KPIs are related with management of flow of vegetables from procurement to the delivery to customers.

Table 1: The KPIs for Samriddhii Vegetable Supply Chain

KPI	Underlying Meaning
Shelf life of vegetable, Obsolescence(each container basis), Percentage of target group served, Availability of right volume of vegetable (on any given day)	Reliability
Delay in transportation (in hours), Order fulfillment lead time (in hours)	Responsiveness
Choice to customers (selection from availability of all seasonal vegetables)	Flexibility
Pure organic vegetables (as % of Total vegetables)	Quality
Wastage of vegetable (weekly basis), Loss in transportation (each trip basis), Blocked funds (weekly or monthly basis), Loss due to poor packaging (each container basis)	Asset
Cost of vegetables sold, Total supply chain cost in serving fresh vegetables to customers	Cost

Samriddhii supply chain is building operational excellence in its activities so as to provide customers vegetables at a competitive price and through convenient delivery. In order to strengthen operational excellence capabilities, Samriddhii needs to provide timely, accurate and the visibility-of-orders and in-transit inventory. This may be facilitated by using track and trace movement of vegetables from procurement to the end customer delivery and also feeding back the information about customer's requirements. Vegetable processing systems may be designed around lean thinking and principles of Kaizen. Interstate transportation of vegetables requires the compliance with Union and State regulations. Transportation of vegetables requires the use of different modes of transportation, use of coolers or refrigerated trucks, transport and warehouse management systems. Finally Samriddhi needs to forge collaborative relationships with various supply chain actors and share similar commitment towards continuous improvement.

Samriddhii kind of model is quite relevant in Indian context as it can be replicated to provide livelihood to masses. It improves overall resource management and creates value for all the actors thereby, leading to societal benefits.

Gyan Prakash is a faculty at Indian Institute of Information Technology & Management, Gwalior.

Samriddhii: Redesigning the Vegetable Supply Chain in Bihar

K. R. Jayasimha

"Good ideas generally arise out of prior experience. Successful ventures solve problems faced by the founders".

The idea of selling vegetables through refrigerated pushcarts is an interesting one. The idea fulfils a latent demand of urban Indians viz., farm fresh fruits and vegetables. Given the pent-up demand for fresh fruits & vegetables, anyone fulfilling the demand stands a fair chance of success. However doing that is easier said than done; given the bottlenecks in the supply side.

Kaushlendra has done a commendable job in weeding out the inefficiencies in the supply chain by reducing the number of intermediaries and connecting the growers & vendors. While doing so, he has addressed many aspects of customer experience including the point of sale, shipping & logistical methods, employee training, product labeling etc. A simple act of putting a label indicating the source & the time makes an intangible value proposition of farm fresh vegetables to a tangible one.

"Success breads competition". This brings up questions pertaining to Venture sustenance. Competition not restricted to rivals from within the industry with similar offerings and new entrants, but competition for employees and capital from firms alien to the industry.

Kaushlendra solely driven by his desire to help poor vegetable farmers (luckily) hit upon a business idea that required low capital, offered reasonable margins to sustain growth with internally generated funds and low fixed costs. What seem to have worked for the start up are Kaushlendra's execution skills. Kaushlendra's USP of 'educated outside but returned to help hometown buddies' and his commitment to the larger social objective is difficult to replicate by others.

However as Kaushlendra ventures beyond his home turf to neighboring markets of Uttar Pradesh, National Capital Region (NCR) and so on, one could question 'has he lost the focus?' as his stated objective is to "achieve the economic independence of the marginalized vegetable and fruit-growing farmers in Bihar. Though scaling the venture by product and market development is a good idea from the point of view of venture sustenance, the issue of digression from the stated objective cannot be ignored.

Besides, as the food mile increases (as he expands the foot print) the appeal of the USP might decrease. The plight of the farmers is not drastically different within and outside Bihar. The association of place of origin with a specific variety of the vegetable would diminish outside the geographic boundaries of Bihar. So future success is largely a function of the supply chain efficiencies.

As the venture grows in size, finding people committed to the cause would become increasingly difficult. Balancing the aspirations of the growth & profitability with the original intent will be a significant challenge.

Reference: Developing Startup Strategies, Amar Bhide, HBS Note.

K. R. Jayasimha is a faculty member in the Marketing area at Indian Institute of Management Indore. His recent publications include cases in Asian Case Research Journal (ACRJ) and Ivey Publishing.

Samriddhii: Redesigning the Vegetable Supply Chain in Bihar

Srinivas Gunta

The fact that Samriddhii is on the path of growing its turnover from Rs. 3 million in 2007-08 (annualized value of last quarter figures of Rs. 0.75 million) to Rs. 40 million in 2010-11 at a heady CAGR of 137.13% is a clear indication of the economic rationale behind the business, even after accounting for the base effect. Hence, in this analysis, the focus would be on the social objectives behind the business venture and the ability of the latter to address the former, even as growth continues.

Samriddhii is an interesting model as it proposes to help not only the producer of vegetables but also the end distributor with the resultant act of consumer satisfaction. In this sense, it is highly evocative of the model of cooperatives as exemplified in Anand through Amul - it had a logo representing a ring of four hands holding one another, each hand representing the farmer/ producer, the processor, the marketer/ distributor and the customer/ consumer respectively. Yet, before equating Samriddhii with Amul, some key distinctions and the implications there of, need to be noticed. While milk is also a perishable commodity like vegetables and hence the opportunity cost of a lost sale is high, the advantage of a huge dairy cooperative lies in the fact that the milk can be processed into milk powder that can be recombined to milk at a later date. In other words, cooperation by a large number of milk farmers helps defray the huge expenses involved in procuring and running machinery that help in processing milk into milk powder. However, in the case of vegetables, the solution of using icepacks to ensure that the produce is fresh is not comparable due to two reasons: firstly, the outlay is not as huge as in the case of a dairy unit and hence, the minimum efficient scale of operations being smaller, would attract severe competition, including from the current intermediaries. Secondly, the use of technology in the case of vegetables delays the perishability but not to the same extent as in the case of milk. Also, managing farm produce appears to be a problem of different order in comparison to managing dairy produce - for instance, the foray of National Dairy Development Board into the domain of oilseeds was not as successful as its earlier foray into milk.

The case describes that Samriddhii redesigned the vegetable supply chain as simple-but-systematic. While it is evident that volatility cannot be wished away in a vegetable supply chain and that the forecasts can at best be estimates, what Samriddhii does remove is the vendors' susceptibility to exploitative intermediaries. In other words, the value added by Samriddhii is in terms of instituting a simple price discovery mechanism and remove information asymmetry a la the case of e-choupals run by ITC. Also, while Samriddhii may not be in a position to address fully the myriad issues faced by the vendors such as low margins, dealing with police and local civil authorities, fending off the local mafia etc., it is expected that the presence of an organized entity such as Samriddhii would at least ameliorate the situation.

Arguably, the greater and the more significant difference is brought about by Samriddhii at the producer end rather than at the vendor end. For instance, Samriddhii Grameen Kendras (SGKs) are providing inputs and information apart from performing their primary function of procurement. In a milieu where illiteracy is coupled with spatial and temporal difficulties in accessing information on agricultural best practices that is at least theoretically available in agricultural universities and the like, SGKs help directly by making the information available in a timely manner. Thus, apart from playing the role of market players, SGKs also help out in filling the institutional voids.

More importantly and interestingly, the structure of SGKs mirrored at the city level through Samriddhii City Centers (SCCs) ensures that there is a hierarchy that ensures timely coordination; at the same time, acting as independent market players in different parts of the value chain (SGKs working with farmers in rural areas and SCCs working with pushcart vendors in urban areas) ensures that the rigid protocols of hierarchy do not suffocate the ease of price discovery. Combining the best elements of hierarchies and markets, the SGKs, the Kisanga clubs and the SCCs ensure that they have competitive advantage vis-à-vis traditional alternatives available to both the farmers and the vendors.

As Samriddhii continues to grow, several trade-offs need to be addressed. One of the action items for future is to expand the business further by developing Bihar as the vegetable hub of India - while storage and refrigeration problems are in the process of being solved innovatively, the fundamental promise of supplying local produce would have to be compromised. As Bihar continues to develop as a vegetable hub, choices also need to be made on availability of land, with the scenario of land hitherto used for other purposes increasingly getting diverted to vegetable farming. Most importantly, as the area of coverage expands, Samriddhii would probably be better served by focusing on the farmers rather than the vendors - while Samriddhii has competencies in managing both the sets of stakeholders, it stands to reason that it would grow faster by concentrating on a single set. As most organized retail players find it difficult to develop a strong supply backend, Samriddhii could step into this space as supply aggregator and use the organized retailers as front-end rather than rely on pushcart vendors solely.

While there is a lot to observe in the near future as to steps taken by Samriddhii, it has already started addressing socially desirable aspects of doing business. For instance, it has focused on all the three levers of value creation, distribution and appropriation unlike most firms that focus on the last lever to the detriment of the second one. Again, with increased emphasis on organic farming, Samriddhii is also heralding not just an interesting socio-economic experiment but actively promoting triple bottom line as well. Finally, in the fifth anniversary edition of his celebrated book on Bottom of Pyramid, C K Prahalad pronounces the need for viewing the populace at the bottom of the pyramid as suppliers too and not just as consumers. This case on Samriddhii is a fine illustration of the concept.

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Samriddhii: Redesigning the Vegetable Supply Chain in Bihar

M. Janakiraman

Introduction and Analysis of Situation

Mr. Kaushlendra Kumar, a management graduate from IIM Ahmedabad started social entrepreneurial projects, 'Kaushalya Foundation' in 2007 as an Not-for-Profit NGO, and 'Knids Green Private Limited' in Patna city as the base in 2008. Knids entered Lucknow in 2009 as a joint venture. Mr. Kaushlendra turned down several lucrative corporate offers with the prime objective to leverage his competencies to uplift the poverty sticken small farmers in the state of Bihar, his birthplace. Mindset of farmers, vegetable vendors, general public and youth in particular were the reasons for the scarcity of competent and committed employees who could help in establishing and stabilizing the venture which required considerable effort and energy.

However Mr. Kaushlendra managed the Herculean task of organizing farmers and vendors and encouraging them to participate in the process more judiciously using local contact, and exhibiting great patience. His leadership skill needs special mention in the early success of the venture. The entire group managed to grow from scratch to the turnover of INR 40 million in the year 2010-11.

Samriddhii, a comprehensive supply chain for vegetables started in December 2007. The objective of this initiative was to improve the standard of living of small farmers of Bihar. Mr. Kaushlendra identified the opportunity to achieve this goal by increasing the efficiency of the supply chain by directly linking the vegetable growers from the villages to the vendors in the urban centres where majority of the consumers reside. This benefited the system a lot owing to the removal of multiple stages and a long chain of intermediaries. These intermediaries were getting the benefit from the information asymmetry and were taking a lion's share of the consumer price.

Structure and behaviour of the business of vegetable supply chain is assessed using Porter's five forces model. Competition in this sector is multifaceted and complex. Number of socio-political forces impacts the shaping of the structure and the conduct of different players. Only in recent years, some large business houses like Reliance, Godrej, ITC, Namdhari Fresh, Food Bazar, Spencers etc., have entered this business as a back-end supply chain for their retail or food processing business. At the national level the share of the organized sector is negligible and in some specific pockets it is only about 3-5 per cent. The focus was to be in the unorganised sector for the next 10-15 years at least.

From the supply side, the vegetable producers were less powerful. Their dependence on agricultural income and lack of other sources of income make them dependent on intermediaries such as local truckers and commission agents. Vagaries of weather, perishability of farm produce and information asymmetry help the intermediaries to wield power and take away a major share of the consumer price.

Consumers have a wide choice of vegetables to buy and a wide choice in points-of-purchase as well. As household consumers are price sensitive, their demand is small and they have a number of close substitutes. They switch vegetable vendors; bargain on prices and substitute alternate vegetables. Small vendors don't have much control due to the lack of capital and dependency on large vegetable agents and wholesalers for credit and regular supplies. They undertake the business activity as a means of basic livelihood and sustenance.

Traditionally vegetable vending, and other intermediary businesses are carried out as a family business for generations. Relationship of the agents with vegetable farmers and retail vendors also run

for generations. Further, there is a taboo attached to these businesses and generally youth don't want to take up such activities. The information about market arrivals and sales are kept within business circles and is difficult for any new entrant to have access.

As mentioned earlier consumers prefer different vegetables and a variety seeking behaviour among them is common. Vegetables being commodities, consumers switch from one vegetable to another without much hesitation and also switch vendors based on prices and services.

The competition among the agents and vendors is fierce and they may resort to non-economic means of competition if their position is threatened as most of them earn a major part of their income from this business.

Problems

Based on the analysis of market situation and the organizational context the problem may be narrowed down to a few major ones:

1. Graduating from initiation phase to growth phase
2. Organizational infrastructure
3. Genuine participation from farmers and vegetable vendors.

Objectives

Clarity of objectives are important to provide guidelines to the decision making process. Mr. Kaushlendra has to spell out the objectives clearly and with some qualitative targets, which may help his organizational members to clearly focus on and assign accountability. Based on the review of various aspects of internal and external contexts and problems in hand the following objectives may take precedence over others.

1. Increase the income of both small vegetable farmers and vegetable vendors.
2. Sustain financial viability of the organization.
3. Achieve a turnover of INR "X" and benefit "Y" farmers, "t" vendors. Increasing their average income from INR "xo" to INR "xt" by the year "t".
4. Demonstration of commitment and feasibility/viability.

Alternatives

Mr. Kaushlendra and his team have a number of alternatives to achieve their objectives in the long run. Some of the alternatives are listed here. These alternatives may not be mutually exclusive and they may be considered at different points of time and in different sequences.

1. Increase market share in Patna and Lucknow markets
2. Expand to Kanpur, Varanasi, Allahabad, Noida, Gaziabad and Delhi markets
3. Entering into cold chain storage business
4. Entering into food processing

Evaluation parameters

The alternatives have to be evaluated based on the following parameters.

1. Manpower
2. Financing
3. Building supply chain
4. Second line leaders
5. Competitive pressure
6. Cost of operations

Analysis

The problem in hand is quite complex and the evaluation warrants a systematic approach. Analytical tools such as Analytic Hierarchy Process (AHP) are suitable if assumed to have hierarchical relationship only, or Analytic Network Process (ANP) can be used if there exists considerable interactions among alternatives and parameters, and possible cyclical influences. In the present case analysis I just present a possible Analytic Hierarchy Structure in Figure 1, as an illustration. Both AHP and ANP can help in prioritising evaluation parameters and generate scaled weights which in turn can be used for assessing the alternatives to take decision.

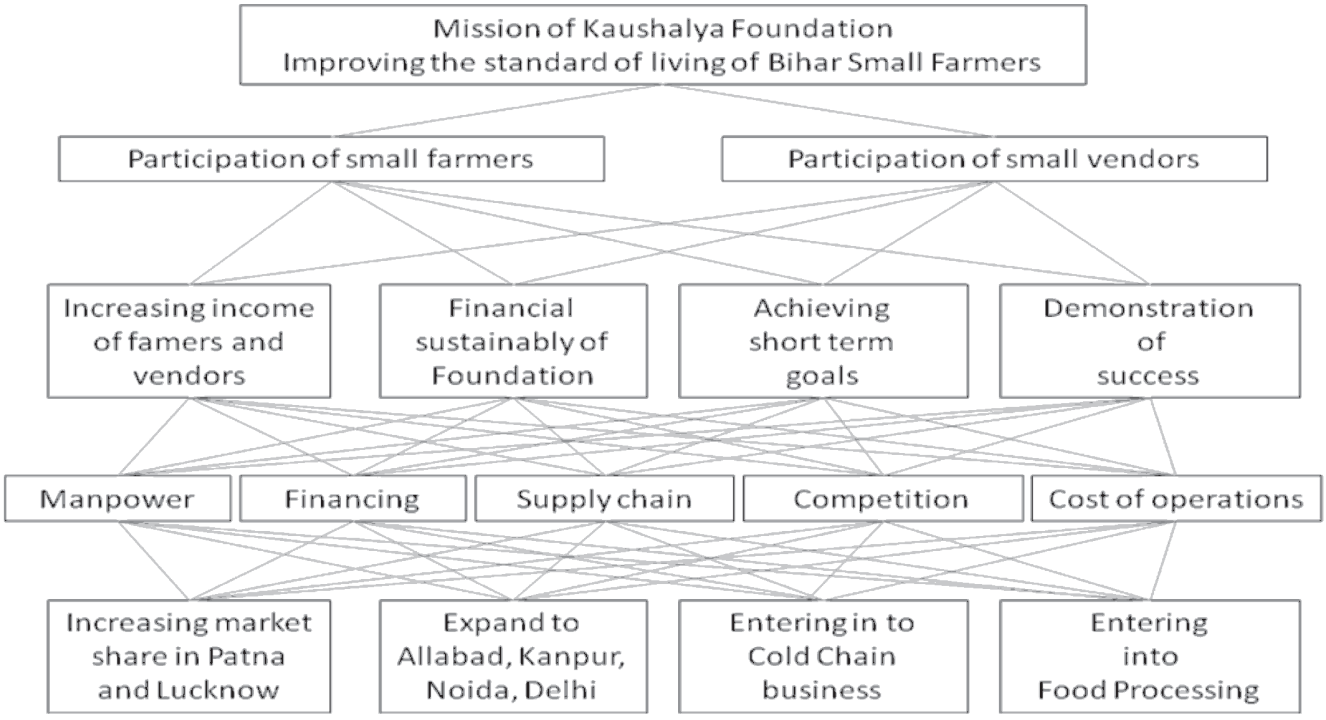

Figure 1: Hierarchical Structure of objectives, evaluation parameters and Alternatives

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A Natural Kind of Innovation*

R Gopalakrishnan

How to innovate? That's a hot subject in company corridors, management schools and elsewhere, but that's not the thrust of what I want to share today. Rather, I would like to shed some light on how innovation has taken place on different occasions - and in different ways - in the Tata group. The message I want to convey starts with the idea of innovation as it evolves in human beings.

We are all born innovative. However, from the moment of our birth to the next 15-30 years, various efforts are made by various people and entities - by our families, by our education systems, by the societies we live in and are shaped by - to stymie our innovativeness. By the time we turn 25 we could well end up attending seminars on how to be innovative. The best of innovations happen when this situation is circumvented.

The Western form of innovation is about teaching the processes and systems. Not surprisingly, the whole business of management education has now become so that somebody has to teach how to do something, from step one and model one onwards and then go on from there sequentially. I call this the McDonaldization of management education. But management is like a nice meal served with a glass of wine: you have to soak yourself in it, think about it, see and understand the context. If you can do that, then you have delivered yourself the chance to unleash the real power of innovation, which is natural innovation.

Natural innovation is innovation that happens naturally, unconsciously. In this context, there can be many sources of inspiration, among them nature and other human being and organizations. Consider, for instance, the baby bird that learns to fly. You won't catch this fledgling trying to practice how to fly, or see it tale training lessons from its mother; it will, one fine day, get up, flap its wings and take to the air - and naturally so. Similarly, a new-born fish does not have to learn to swim, or a flower to bloom.

Fishes swim because they are meant to swim, birds fly because they are meant to fly and flowers bloom because they are meant to bloom. People innovate because they are, in a natural-born sense, meant to innovate, and not because they are trained to innovate by way of lectures and books. Now, if you want to read books and attend lectures, please do so; they are not bad influences. But it would be unwise on your part to presume that a two-year MBA program will make an innovator of you.

If you tell a truly innovative person she has been innovative, she is likely to respond by saying, "Oh! I didn't think about it that way." In that respect, innovation is the opposite of management. In management you can put all the rules in place and then operate by them; in innovation you have to open everything up, and that's the way of nature, where actions and reactions are far from fixed.

That's where flexible architecture comes in. In an organized structure people have to break the structure to pull off the unusual. When Ratan Tata set his mind on creating the Nano he got three-four people to report to him directly. That number expanded to 30 and then to a team of 300 and more people. Mr Tata was the champion of this shared endeavor and he was directly connected to it. This, in turn, led to what may be called aligned aspirations.

Organisms interact in nature because they are part of an alliance. Take what happens in Australia with eucalyptus trees and possums? Australia is a country where they are both in harmony. The possums deposit their dropping on these trees. The droppings contain nitrogen that nourishes the eucalypti, and the possums get nutrition from the trees in return. This

* Transcripted and excerpted from a presentation delivered to the Executive PGP participants of IIM Indore at Mumbai.

is an example of aligned aspirations and it happens in companies, too.

The first task in the innovation journey is to innovate holistically. You have to start by thinking of innovation as an across-the-board effort that encompasses many things. The whole business model, in such circumstances, can be an innovation. Take offshoring, for example. Offshoring has been in existence forever; applying it to a particular activity was the innovation, as Tata Consultancy Services (TCS) discovered at the turn of the 1970s. But the folks at TCS originated this without knowing that it as an innovation. This is what I mean by natural innovation.

A critical point here is that the cultural environment is more important than processes. For innovation to happen and for it to flourish, you have to create an environment where people feel natural about what they are doing, In the mid-1980s, when Japanese automakers were beating the hell out of their American competition, an American professor found that Toyota had something called lean manufacturing. He went and studied it and that was the 'just in time' process. This American academic spoke to the engineers at Toyota engineers and asked them what was the secret of their success. They said they didn't know what he was talking about. "You are making cars in a very clever way, just in time, lean manufacturing and so on," he added. "How else do you make a car," the baffled Japanese asked.

Much like the country that India is, there is certain messiness in innovation. It is not the neat theorizing that books tell you it is. Often whenever Tata wants to create something new, it starts another company so that it can think in terms of aligned aspirations. TCS was once a part of Tata Power and Tata Motors was promoted by Tata Steel. Many western companies tend to have everything aggregated: one single company with different divisions. That's not a bad way to go about it -Hindustan Lever did that way - but it can produce some unproductive effects sometimes.

Another point is that on the question of innovation you have to be a long-term player, a really long-term player. It is like with parents and their children: there cannot be a short-term relationship; the ties must endure and they must be nurtured for the best results to come through.

For ties that endure, you need look no further than the Tata group. The Taj Mahal hotel in Bombay was the first building in the city to have electricity, ceiling fans and much else. Tata Steel was the first company in India to raise money from the public (nobody up to that point had envisioned Indians having money to invest in private equity). The structure of the Tata group, the entire edifice, is a work of innovation. There are the Tata Trusts, which own Tata Sons, the promoter company of the group. Tata Sons, in turn, owns shares in the different Tata enterprises, which are the children, grandchildren and great grandchildren of the original owners.

The Tata trusts are the root (nobody quite recognizes this) and Tata Sons is the trunk. The tree is growing and the youngest of the progeny are at the top, getting sunshine and water, support and sustenance. That's how it has unfolded in the Tata group. In this context, the Lakme case is an interesting one. Lakme was sold by Tata to Hindustan Lever, but before that comes the tale of how it got started. The story goes that Indira Gandhi wanted an Indian company to produce cosmetics for Indian women. She called Kish Naoroji, the then resident director of Tata Sons in New Delhi, and said, "Tata should be making lipsticks, talcum powders and other basic cosmetics for Indian women." Mr Naoroji replied that the Tatas made steel and generated power, but it had no expertise in cosmetics. "Do something," Ms Gandhi urged.

That is how Lakme came to be, but the story does not end there. There's that name. Naval Tata, director of the Tata group, was in Paris and he saw a French opera by the name of Lakme, a French version of Lakshmi. That is how the name Lakme came to be the brand name and the rest is history.

Tata Salt is a different kind of innovation, completely desi, and completely outsourced, so to speak. The packing was outsourced, as was the marketing, the distribution, the branding, the pricing and the

invoicing. This was a remarkable innovation for its time - back in the 1970s - and almost impossible to replicate today. Benetton has done something similar in garment manufacturing, and that is the subject of a HBS case study.

Innovation comes clothed in different shapes and sizes, and it helps to have a case study to push forward its merits. I once attended a management program where the professors talked about the Benetton innovation and the greatness of its outsourcing model. Then I came back to Tata and realized that Tata Salt had done much the same, but no one was there to speak about its efforts.

Do you know which is the world's largest branded-salt company ? It's Tata Chemicals' two brands of salt, and this even the people at Tata Chemicals do not know. What's the clever idea here? There is precious little water in Mithapur, where the Tata Chemicals plant is, so they decided to pump in seawater and desalinate it. What they got was pure, distilled water and pure salt. Question was, what do they do with this salt?

The chemicals guys had their water and, understandably, were least concerned about the salt. This could be carted away, for all they cared. That's how it came to pass that somebody would come and take away this unwanted residue. Then somebody else understood that this unwanted residue was the purest of salt. This salt was iodized for the first time in India, was put in a packet - at a time, back in 1983, when packaged salt was an alien idea - and began to be sold. That was how Tata Salt, today the largest selling packaged salt in the county as well as one of India's most trusted brands, was born.

So it is that simple, unheralded concepts come to fantastic fruition, and in a manner that can best be described as natural. There are many such examples in India and in the Tata group. There's Titan and its Edge, the slimmest watch in the world, Tata Motors and its extraordinarily successful Ace and the Nano, and Tata Chemicals with its Swach water purifier. Then there are the business model innovations, such as TCS.

The Tata leadership has always been concerned about what the Tata group can do for the greater good of many. If you set out to do good for other people, something good will happen to you. Swach is illustrative of this truism. Unsafe drinking water is one of the biggest killers in the world, ahead of Aids and heart disease, but water purifiers have the lowest penetration among consumer durables in India. Television sets, pressure cookers, bicycles, refrigerators, washing machines - you name a product and it's ahead of water purifiers.

Swach started with the boffins at the research wing of Tata Consultancy Services (TCS) figuring out a way to mimic the natural cleansing of water, which means the way nature does it. What they created was quite remarkable: a water purifier that requires no electricity or running water, made of natural elements like rice husk ash and capable of purifying up to 3,000 liters of water with every cleansing cartridge. And they pulled this off, with significant help from Titan, at a cost that was even more remarkable.

Tata group has an innovation forum and its mandate is not to tell people how to innovate but to restore the natural order that generates outstanding innovations. We have a number of senior colleagues contributing to this endeavour, we have workshops and international experts and our own people going to different places in the world and seeing for themselves what is happening there on the innovation front. We have research publications and other material to further the learning, we have reward and recognition initiatives, and we have what we call the Tata Innometer, which is a rating yardstick for innovativeness.

All of this encourages, we believe, a process of self-discovery and self-awareness and that is the only way to improve the state of innovation in any given company. On April 26, every year we hand out innovation prizes to our most innovative people and companies. Here we have a category called 'dare to try', which honours brave and original innovation efforts that have not been successful.

This is a unique prize category. In the first year that

we constituted it, we found that people were not willing to admit to failure. But the truth is that you stumble, you get some things wrong; thats how life unfolds. Our people from abroad, from our foreign acquisitions, were happy to apply for it, but our Indian companies were shying away. That was in character with our country and its mindset. Have you ever heard of an Indian admitting to failure? It is always somebody else's fault. But this mindset changed as well and the dare-to-try segment started receiving more and more attention.

There is no such thing as no-risk innovation; risk will always be there. Managers are trained to be judgmental rather than knowledgeable; they are hired to make judgments. What you have to do is minimize risks. That's a big difference from avoiding risks altogether.

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Leadership in Organizations

Vartika Dutta and Biplab Datta

Yulk, Gary (2009). Leadership in Organizations, Prentice Hall, pp. 535, Rs. 445, ISBN: 978-81-317-0701-2.

Gary Yukl is Professor of Management and Leadership at the State University of New York in Albany, and a board member of the Leadership Quarterly journal. He is a well-known scholar and author on leadership. His book, Leadership in Organizations was first published in 1981. This review is pertaining to the new edition of this old book. People have been interested in leadership since the beginning of history and the study of leadership as a scientific discipline started more than half a century ago. The book contains a comprehensive survey of major theories on leadership and managerial effectiveness in organizations, with practical suggestions for improving leadership skills. Balancing theory and research with application, the book addresses controversies and differing viewpoints about leadership effectiveness with a focus on the question what makes a person an effective leader. It provides guidelines and recommendations for improving effectiveness without prescribing how a manager must behave. Readers are treated to detailed, discussions of relevant leadership issues. Within each issue, Yukl glides through the theories and then details how to achieve practical results. Each chapter covers a particular aspect of leadership research concluding with a summary and questions for further discussion. Key Terms are highlighted, with at least one case study at the end of each chapter. The book includes an extensive reference section and an instructor's manual that contains exercises and role-playing activities. The result is a practical, working manual about leadership

Leadership in Organizations has a specific focus on managerial leadership in large organizations and is an attempt at bridging the gulf between academicians and management practitioners. The author covers a wide range of theory and research in leadership in formal organizations for the last 50 years. The book provides an in-depth and comprehensive analysis of the literature in a clear manner. From the first introductory chapter about the nature of leadership, Yukl writes what is essentially an academic text, but with a clarity to a practicing manager with a serious interest in the subject area. The research approaches are broadly outlined in terms of the characteristics of a leader, follower, and the situation. The theories are classified into five approaches, which include trait, behaviour, power-influence, situational, and integrative. These are further conceptualized as intra-individual, dyadic, group and organizational processes. Yukl looks at the theories through a continuum with the following distinctions: leader- versus follower-centric, descriptive versus prescriptive, and universal versus contingency (situational). The focus, throughout the book, is on leadership in large organizations. Many of the research topics studied as descriptive research include the leadership roles undertaken by those in managerial positions. In the sequel, the organization of the book is reviewed, collecting common themes under the following different heads:

Effective leadership, participation and empowerment

Extensive research has been undertaken on leadership behaviour since the 1950s mainly pertaining to three areas: task-oriented, relation-oriented and participative leadership. Thousands of studies undertaken in the past, mostly through questionnaires, have given rise to a number of taxonomies which Yukl proposes might be refined into the three jointly inter-reacting categories of task-, relations- and change-oriented behaviours. While looking at participative leadership, delegation, and empowerment, the author takes a closer look in

Chapter 4 at the Vroom-Yetton model of participative leadership developed in the 1970s. This model may helps managers identify decision procedures in different situations.

Yukl observes that significant research in the past has focussed on the dyadic (one individual to another specific individual) relationships between a leader and a follower. Within this context, he reviews a number of follower-based theories in Chapter 5, including leader-member exchange (LMX), leader attributions about subordinates, follower attributes can be simplified implicit theories and follower contributions to effective leadership, and social learning theory (self-management). All of this emphasizes the importance of the follower.

Power, influence, contingency theories, traits and skills

According to Yukl "influence is the essence of leadership". This is the focus of Chapter 6, which concerns power and influence. Here different types of power are studied, the focus is on the French and Raven taxonomy of five types of power namely reward, coercive, legitimate, expert and referent power. Guidelines are proposed for using legitimate authority, reward authority and coercive authority. Yukl even describes the tone of voice a leader might use, which (along with his suggested phrases) could be perceived by the reader as prescriptive.

How is power won or lost and how much power should a leader have? These issues are discussed in Chapter 7 including the traits and skills approach to leadership. Possibly, the most researched area of leadership is the traits approach. Here the findings of the most relevant aspects of personality for effective leadership are summarized and integrated including the "big five" personality traits: surgency, conscientiousness, agreeableness, adjustment and intelligence. Personality traits are considered relevant to successful leadership, and those highlighted as the most pertinent, include energy levels, stress tolerance, self-confidence, internal control orientation, emotional maturity and integrity.

Chapter 8 considers how the leader's traits or behaviours are related to indicators of leadership effectiveness in different situations. Five principal contingency theories have been summarized and reviewed. The research findings and methodologies, models, tables and guidelines for their application are given. The five contingency theories discussed are Fiedler's least-preferred co-worker (LPC) theory, Evans's path-goal theory, Kerr and Jermier's leadership substitutes theory, multiple-linkage models (leadership and group effectiveness), and Fiedler's cognitive resources theory. In his evaluation of the theories, Yukl criticizes the existing framework for lacking in measures and being weak on research design. He also comments that "most managers are too busy in any situation to stop and analyze it with a model". However, the theories may provide sufficient guidance to help a manager identify leadership requirements.

Along with the study of traits, behaviours and contingency approaches, much of the past research has focused on the study of "heroic" leaders. Chapter 9 covers this aspect when considering charismatic and transformational leadership. Yukl observes that while most researchers use the terms 'charismatic' and 'transformational' leadership interchangeably, these are in fact distinct but overlapping terms. Charismatic leaders are deemed to have a tremendous influence on organizations, but such influence can be negative as well as positive. Transformational leaders make followers aware of the importance and value of the work as well as encourage them to think beyond self-interest. These theories are, however, largely based on a dyadic level of analysis. The theory of transformational and charismatic leadership emphasizes that emotional processes and symbolic actions are as important as rational processes and instrumental behaviour.

Change

Leading Change is a difficult but important leadership responsibility. Chapter 10 discusses the change processes, and emphasizes cultural change. The creation and establishment of a clear and compelling

vision given by the leader is useful to guide the organization through change. Guidelines are also proffered for implementing change.

Teamwork

Teamwork, group decisions and leadership by executives are explored in Chapters 11 and 12. The use of teams and decision groups in organizations is a growing phenomenon. Leadership required for building and facilitating team learning and decision-making have been considered. Guidelines are proposed for effective team building to increase cohesiveness, mutual cooperation, and identification with the group. Many leader-centred and group-centred approaches for leading meetings are also presented.

Research on leadership from the 1950s until the 1980s was mostly concerned with middle managers. Theorists turned their attention to top managers from the 1980s, but there is controversy in leadership literature regarding the role of executives on the effectiveness of an organization. Chapter 12 looks at strategic leadership and top management, and considers external and internal constraints, the degree of discretion a leader has, the bias of attributions and the effectiveness of executive teams. Research shows that chief executives have the maximum impact in a crisis, and the monitoring of the environment by executives is considered essential in the formulation of organizational strategy.

Leadership development

Chapter 13 reviews leadership development and conditions that facilitates it. Three forms of leadership development are identified: formal training, developmental activities and self-help activities. Leadership training programmes are discussed, as are the design of the courses, many of which focus on a particular theory, like the LMX theory. Yukl observes that the presence of a strong learning culture in an organization can contribute in supporting leadership development. With this in mind, he strongly advocates work-based developmental activities to foster learning through experience rather than from training programmes.

Ethical leadership and diversity

The penultimate chapter covers ethical leadership and diversity. Ethical leadership includes efforts to encourage ethical behaviour as well as efforts to stop unethical practices. The criterion for evaluating ethical leadership includes leader values, intentions and extent to which the behaviour of a leader is morally justifiable.

Yukl observes that sex-based discrimination in the selection and promotion of leaders continues to be a problem in organizations. Research in this area is limited, as is leadership in different cultures. Bulk of the studies appears to have been conducted in United States, Canada and Western Europe. It is acknowledged here that, with the rapid pace of globalization, cross-cultural leadership is an important topic for research. Another important responsibility for leaders in this century is the management of diversity. Leaders can take initiative to encourage tolerance and appreciation of diversity in organizations. Readers are introduced to the GLOBE project, which is taking steps in this direction, studying leadership in 62 countries representing all major regions of the world. The project is ongoing and involves 170 social scientists and management scholars.

Overview and Integration

The book concludes with an overview and integration in Chapter 15. The major findings in leadership are summarized. Yukl advocates a multimethod research design to accelerate the convergence in the findings from different approaches. Controversies about research are considered and summarized as relying too much on weak research methods. Most theories involve a predictive model identifying traits, skills and behaviours, and fitting these into the leadership process, which, in turn, involves criteria and situation variables. Yukl suggests that what is missing are the mediating variables necessary to explain leadership

influence on individuals, group processes and organizational effectiveness. Yukl concludes with a list of ten of the most important leadership functions for enhancing collective work in teams and organizations.

Conclusion

Leadership in Organizations takes a look at the research done in the complex field of leadership in large organizations. As each chapter begins with a list of learning objectives, it appears that the audience for the book is students , rather than practicing managers. The case studies and questions given at the end of each chapter stimulates the reader to ask more questions, thus creating a greater awareness of leadership in a management context and helping them understand the real world of organizational problems and applications. Yukl provides a comprehensive review of techniques, citing examples and guidelines throughout the text. Though some might find the style highly-directive, others will benefit from the directions that Yukl provides. This book reads like a college text book and is indeed used by a number of Universities in their management or leadership training programmes. The book is easy to read and does an excellent job of including relevant theories & current literature. Anyone undertaking a leadership role or studying the subject of leadership from an academic perspective should find this book highly useful.

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TATA-The Evolution of a Corporate Brand

Bijal Zaveri Amin

Witzel, Morgen (2010). TATA-The Evolution of a Corporate Brand, Penguin Books Ltd, pp. 222, Rs. 599, ISBN: 9780670084067.

When people think of corporate brands such as value for money, reliability and so on, they think with their minds, but when they think about Tatas in India, they think with their hearts...

"What does make the Tata brand? Where does it come from and what is it based? How is it perceived by customers, by employees, by the financial community, by government, by the people of India and the people of other countries where the group does business and by other members of the Tata group? Answer to all these questions are given in the book "TATA-The Evolution of a Corporate Brand" which is written by Morgen Witzel and is foreworded by Ram Charan.

This is a book about the Tata corporate brand-how it has evolved, how does it function and what is the perception of others about it. Morgen Witzel, an honorary senior fellow at the University of Exeter Business School and a senior consultant with the Winthrop Group of Business Historians, has authored 15 books on business and management. In the year 2009, 65 per cent of the revenue of the Tata group was from outside India; it is only natural for people both within and outside India to know more about the group, its brand and what does that brand stand for? The author digs into the heart of the Tata group, and describes its origins. Also about evaluation of its reputation and image thereby a powerful and valuable corporate brand.

The distinctiveness of the book is that it is lesser concerned with issues of monetary value in it, than with what the brand is and what it does. As the book shows, it is impossible to understand the Tata corporate brand without understanding the symbiotic relationship that brand has with the various Tata company brands and Product/Service brands.

Tata-Corporate Brand Evolution

Since the liberalization of the Indian economy in 1991, Tata has been subject to global competition, making it imperative for the group to become competitive against the new entrants.

To gain scale, to reduce their exposure to the cyclicality of India's economy, to survive, and to achieve a sustainable competitive position in globalizing industries most Tata companies looked overseas.

Tata's recent experience is an excellent case for analyzing 'accelerated internationalization' (Matthews, 2002). As it pertains to a challenger conglomerate from formerly peripheral areas that goes international in order to access resources; to access new markets (e.g., in BPO services), the opportunity to integrate the value chain (e.g., in steel), and to have more brand control (e.g., in tea). This strategy proved feasible because of the visionary leadership; possibility of leveraging the developing financial markets in India; large domestic market and global liquidity; and ability to react quickly to specific opportunities.

Tata is active in seven major business lines: information systems and communications, engineering, materials, services, energy, consumer products and chemicals. Prior to independence, Tata Group pioneered several “firsts” in Indian industry. To name: private sector steel mill, private sector power utility unit, luxury hotel chain, production of ammonium sulphate, and the international airline. Tata also helped revolutionize business practices in India. From institutionalizing the eight-hour work a day and paid leave to providing a retirement gratuity, it created a parameter standard to which other companies and eventually Indian government regulators - measured themselves.

Tata, with its strong corporate culture (Hirota et al., 2007) and unique business model, is exemplary in turning corporate citizenship into business. The value of the brand itself is associated to the philanthropy of trusts of the company.

The corporate brand is compared to a prism, refracting light in different directions through its different facets, and creating shapes and impressions in the minds of the stakeholders around it. Tata is connected to the people of India, either in terms of social commitment or in terms of providing products and services that are good for people and that people need.

Tata is over 140 years old, with twenty eight publicly listed companies, operations in over eighty countries and exporting products and services to over eighty five countries. From small beginning in India, Tata now has a major international reach with 65 percent of the group's revenue drawn from Business outside India. Latest figures show revenue of $70.8 billion in the financial year ending in 31 March 2009. Tata: The Evolution of a Corporate Brand is not just a story of a successful financial powerhouse. This is the story of the values of Tata: about what does lie beneath the day to day activities, it’s DNA and how does it underscore its economic success while fulfilling its societal mission?

The Tata experience suggests that the strongest and most enduring myths and symbols are those created by action, by engaging with people, by revealing and making explicit the firm's values and then living by them, consistently day after day.

First Chapter provides an overview that what do corporate brands do? How does it influence organizational activities from top to bottom? The author defines corporate brand as its values and its identity, and explain these to all stakeholders; customers, employees, investors and society at large. Individual brands fight their own battles. It also suggest that three key values lie at the heart of the Tata Corporate brand: trust, reliability (especially in terms of quality and value for money)and service to the Community. 'The corporate brand provides air cover.' It explained as the metaphor of an umbrella with the corporate brand providing shelter and protection for the smaller product and service brands. The Tata brand not only provides 'air cover' or an umbrella but also draws strength in return form the individual brands. The success of the Nano has strengthened not just Tata Motors but the entire corporate brands.

The author discusses about the values followed at Tata group. The values exert influence in three ways. First they influence strategy, including brand strategy at both the group and the independent company levels. Second they influence individual actions and behaviours. Third the values also directly influence stakeholder perceptions. Every employee of every Tata group company is required to sign the group's code of conduct and abide by it. Tata's values are well known and widely disseminated in India. The values help to guide and shape the relationships that the group companies build with their stakeholders. Values of TATA group reflect in J.R.D Tata's statement for value that 'what came form the people has gone back to the people many time over'.

Author discussed about evolution of Tata Group and of its reputation and image in the second chapter. It takes a detailed look to explore how did that vision develop, how did it take form in three of the businesses J. R. D. Tata founded; Empress Mills, The Taj Mahal Hotel and Tata Iron and Steel Company (TISCO), now known simply as Tata Steel. It also narrates Jamshedji Tata as a strong brand in his own way. He lived the brand, putting into practice the values he espoused. The story of Jamshedji Tata makes clear the linkage between values, actions and reputation, the same things that lie at the heart of every strong brand.

The Third Chapter notes about (over the years) the rich myths and stories collected over the years about the Tata group and its leaders . It narrates consensual style of Tata to build corporate brand image. J.R.D Tata believed that the entire purpose of business was service to the community. The Tata group also became a symbol of rectitude, at a time when corruption in India was rising steadily. While other companies paid bribes to gain public contracts, the Tatas were the upright to sooner lose a contract than dishonour

themselves through bribery. Trust and integrity are hallmarks of the Tata reputations. It also discussess about dedicated human resource department and practices implemented at TISCO and other Tata companies. Jamshedji Tata preached as well as practiced that 'Good human relations not only bring great personal rewards but are essential to the success of any enterprise'. J.R.D Tata may well be a source of continuing inspiration as the Tata brands goes global.

The Company conducted programs and activities which had their obvious impact: a positive feeling associated with the Tata name. Tata is perceived to be a 'good' organization, one that puts people, planet and services to the community before profits. The reputation for 'goodness' not only increased commitment from employees, customers and others, but also fostered innovation and business growth.

Chapter Four describes the development of the corporate brand beginning in the 1990s. Prior to this point Tatas had made no attempt to develop a corporate brand, and individual companies used the Tata name as they liked. How the brand was created on the foundations of that reputation, is the theme of this chapter. It discusses codification of brand based on various examples such as TISCO, TELCO, TOMCO, TITAN AND TRENT. Brand codification techniques helped to draw the companies of the group back together and to identify with the common values that the group embodied. Also it helped the group and its member companies to present a much more coherent set of brand images to the world at large. The chapter also narrates about Tata's brand tracking dimensions viz., brand relevance; brand affinity and brand personality. Brand tracking studies showed that Tata group is more innovative than other Indian companies. The organization's identity is seen from the perspective of all members of the organization, who are also the recipients of messages. Interpersonal interaction is the dominant communication channel to build brand image.

Chapter Five focuses on 'Brand Symbiosis'. It is an assessment of the brand as it stands today, and the symbiotic relationship between the corporate brand and the individual company brands. The chapter gives a brief outline of ten Tata group companies viz., Tata Steel, Tata Tea, Tata Chemicals, Tata Tele Services, Tata Motors, Tata Consultancy Services, Titan Industries, Trent Taj Hotels, Resorts and Palaces , and discusses how does the relationship function. The main objective of this chapter is to look at the relationship between the corporate brand and other company brands and to show how does that relationship function and describes the relationships within one family of brands.

It gives brief outline about how did the relationship between Tata and its stakeholders has change. Different stakeholder groups have different perceptions. Employees, business partners, the financial community, government and the society at large all have their own perceptions of the corporate brand, and brand managers neglect any of these groups at their peril.

Chapter six narrates the way in which the Tata brand turns to consumer brand. It gives brief outline about brand image in Indian consumer mindset. Also it discusses the relationships that different customer groups have with different Tata brands, corporate, 'Company' and Product/Service brands. Brand tracking studies conducted for Tata show that within India, at least, customers have a fairly consistent view of the Tata brand. Indian consumers see Tata as trustworthy, safe, reliable, a provider of value for money innovative, modern and stylish. Western consumers know very little about Tata and therefore they associate the brand with Indian culture, heritage and mythology rather than the 'Tata-ness' that provides the psychological background. Lacking exposure to the Tata brand, they judge it according to what they perceive to be its Indian-ness.

The chapter highlights that a new generation of customers worldwide needs to be persuaded to join in and help to share the Tata myth, creating it and adding to it as they move along.

Chapter seven looks at the brand form the perspective of employees. In India the employer brand is very

strong. Because Tata has worked hard to make it so. Engaging with employees, demonstrating trustworthiness and commitment, providing a series of sustaining myths give the brand a strong identity and allow workers to participate in the Tata story.

The chapter highlights about how to create and sustain employer brand in the organization? Instead of thinking about employment relationships as a stand-alone brand, HR should focus on customizing its practices to align the employee with the corporate brand. This makes the seamless integration of employer brand with the corporate brand. A strong employer brand offers a number of potential benefits. A brand that effectively codifies the company's values can play a major role in communicating those values and thus in strengthening and reinforcing the firm's culture. The chapter discusses about various Tata's corporate level activities to build employer brand.

Chapter eight describes perceptions of the Tata brand by other stakeholders, including government, media and financial community. The author highlighed some of the ethical practices which were accepted during the financial scandals in the company and also depicts how Tata companies created a solid, safe and sensible investment image in the minds of customers. The Tata financial brand seems to have lagged behind the other part of the corporate brand, where innovation, vision and forward thinking have become strong attributes. Tata's financial brand position at national level is described with some of the examples in chapter, Tata Motors, Tata Steel, and Tata chemicals. A senses of fairness and responsibility is a key attribute of Tata's financial brand which was discussed with few incidences of the company. Tata group has not given equal weight to financial stakeholders. Company has not devoted the same level of attention to their financial brand as they have to the other aspects of their corporate brand, and this is reflected in the group's reputation in financial circles.

Chapter Nine focuses on Tata's brand in terms of its reputation in India. Service to the community has always been one of Tata's core values. It is one that people can buy product from, or invest in, or work for, and in doing so feel good about themselves. The chapter also narrates about Tata's brand values. Tata does not, as a whole, advertise its nation-building and community service projects in India instead they are covered in public documents, annual reports and occasional reports on the company's websites, but it does not take out ads in the press to tell the world about its activities. And this in turn is a powerful element of the brand, contributing far more value than any PR campaign ever could.

The Final Chapter concludes with Tata's overall branding strategies with corporate social responsible concepts and cause related marketing strategies, community services and brand value. The Chapter summarizes Tata's approach to brand management and looks at some of the key challenges facing the brand. It include the modernization of India and, especially, Tata's increasing exposure to and involvement in world markets. Tata lives its brand because its values are so deeply inculcated in the organization's culture that this is its natural course. Tata has achieved what corporate brand commentators refer to as 'alignment' between culture, values and stakeholders.

Overall, this book tells the story of the Tata's corporate branding activities. The corporate brand can be compared to a prism, refracting light in different directions through its different facets, and creating shapes and impressions in the minds of the stakeholders around it as Al and Laura Ries (2004) write in their book. The most successful brands take off like an airplane, not like a rocket. That is, they lift off the ground slowly and proceed towards at a steady trajectory, rather than rising vertically in the stratosphere.

Brands are created by stakeholders, customers and communities, and their experiences. "You have to stand by your word and deliver your promise. Brand owners have a responsibility towards their stakeholders and Tata has kept this in mind very well".

In his book, Witzel quotes Ratan Tata as saying, "If you fail to do what you promise, then everything gets thrown away. Your words have no meaning to anyone. Perhaps, that linkage rings true on the premise that the Tata group strives to deliver. Tata is connected to the people of India, either in terns of social commitment or simply in terms of providing products and services that are good for people and that people need.

A corporate brand is not something that is created by management. Many people are involved in its creation, inside and outside the company, and management can only hope to act in the role of guide and tutor, influencing and nurturing the brand as it develops over the course of years. In its mature stage a corporate brand is a complex agglomeration of symbols, image and myths which all stakeholders interpret according to their own past experience of the brand. The Tata experience suggests that the strongest and most enduring myths and symbols are those created by action, by doing things, by engaging with people, by revealing and making explicit the firm's values and then living by them, consistently, day after day. Tata: The Evolution of a Corporate Brand goes to the core of the Tata ethos to explore the unique relationship between the Tata group and the Indian people, a relationship that goes beyond the achievements of a successful business to its social contributions for its employees and to society at large. Whether an entrepreneur, a manager, a marketer or a student or an interested Tata loyalist, this book will help to understand the durability of the brand and inspire them with the values the brand holds on to the global economy.

This book does not give a complete profile of the Tata group and many Tata companies including some large and old ones like Voltas, Tata Power, Tata financial services.

The reviewer takes the opportunity to suggest this book as a must read for Management students, academicians and strategy makers. It would be very useful to examine branding strategies of the firm.

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Fault Lines: How Hidden Fractures Still Threaten the World Economy

Archana Patro

Rajan, Raghuram G. (2010). Fault Lines: How Hidden Fractures Still Threaten the World Economy, Princeton University Press, pp. 288, Rs. 499. ISBN: 978-81-7223-973-2.

The financial collapse of 2007 and the Great Recession that followed left many economists to rethink and debate about the issue. Why didn't we see it coming? What happened to the usual regulatory checks and balances? What happened to the discipline imposed by markets? What happened to the private instinct for self-preservation? Is the free enterprise system fundamentally flawed? Why was the flood of money that came in from outside the United States used for financing subprime credit? Why was the United States, like any other economies such as Germany and Japan, unable to export its way out of 2001 recession? Why are poorer developing countries like the China financing and unsustainable consumption of rich countries like United States? Why did the Federal Reserve keep rates so low for so long?

Fault Lines is a perceptive, detailed look at where the answers to the questions that were raised during the recession may lie. In the analytical framework of Fault Lines, the crisis was not a pure accident and that more severe crises could arise in future unless the root causes are addressed sufficiently soon. Raghuram Rajan was one of the few economists who warned of the global financial crisis before it hit. Rajan is a professor of finance at the University of Chicago's Booth School of Business and a former chief economist at the International Monetary Fund.

The book acquired a lot of praise for itself after its publication, some of them I would like to include in my review-

"What if financial crash of 2008 was really caused by income inequality? Not greedy bankers, not reckless homeowners, but the ever-widening gulf between rich and poor? This is the startling new theory from Raghuram Rajan"-John Richardson, E Squire

"This is an ambitious project for a book of only 260 pages. It is clear, accessible, but not relaxing; or encouraging."- Clive Crook, Financial Times

"Deserves to be widely read"- The Economist

"Of the many books written in the wake of our recent economic meltdown, this is the one that gets it right" - George A. Akerlof, Nobel Laureate in Economics

The Title "fault line" has been used as a metaphor for the Financial crisis .The book describe the Fault lines that have emerged in the global economy and explains how these fault lines affect the financial sector. One set of fault line stems from the domestic political stresses, especially in the United States, second set of fault line emerges from trade imbalances between countries stemming from prior patterns of growth and the final set of fault line develops when different types of financial systems come into contact to finance the trade imbalances.

The book suggests that many - bankers, regulators, governments, households, and economists among others - share the blame for the crisis. The Author details the hard choices regarding understanding what happened in order to avoid repeating it face in the book.

The book presents two important government distortions in the global economy and their underlying causes. These are (i) the push for universal home ownership in the United States, and (ii) export-led growth in countries such as Germany and China. Together, these policies have led to massive "global imbalances".

The book is divided in to ten chapters. There has been growing income inequality in the United States, which combined with a relatively feeble safety net for the

poor and unemployed, has created pressure on politicians to find quick ways to bridge the inequality. Instead of improving the long-run competitiveness of labor force for a global market with a changing mix of industries and required skills, governments have adopted the short-run option "let them eat credit" (the title of Chapter One).

The presence of government-sponsored financial firms in the United States (Fannie Mae and Freddie Mac, in particular) enabled exercising such an option readily through a push for priority lending to the low-income households (sub-prime mortgages).

In case of surplus countries, it has been the problem of "exporting to grow" (the title of Chapter Two).

Countries that had focused on export -led growth learned an important lesson. The temptation of cheap goods and easy money: rapid debt spending invariably ends in tears because managed capitalism is hard for foreign investors to understand and navigate, they respond by retaining the right to exit at short notice ''flighty foreign financing'' (title chapter3).

Central banks have tended to provide massive monetary stimulus to get the financial sector to push the household consumption and real sector investment harder and harder through greater lending and intermediation. Such stimulus, unfortunately, again serves to transfer rents from households to the financial sector (by keeping interest rates low) and produces mispriced risk. Thus, the economy moved "from bubble to bubble" (the title of Chapter Five).

In the later chapters the book explains why we had a crisis now rather than at some other points of time, proposes valuable reforms, focusing on all three issues: building a better safety net in the United States, reducing the global imbalances, and improving the regulation of the financial sector rather than governments and Central Banks passing on these costs to taxpayers.

The book also helps to understand why export-based Chinese and German growth, and their effective vendor financing of consumption in the US and Euro-zone countries, may ultimately face limits as consumption slows. These countries are now being forced to become the stimulators of growth and run the risk of planting seeds of bubbles in their own economies. These is how hidden fractures still threaten the world economy, as the book's subtitle goes. The book also leads one to consider that the slower growth of India compared to China is not entirely faultless. However it might be more balanced given its lack of extreme export reliance.

Besides the Ten chapters there is a special chapter on India (Afterwards what lies ahead for India)- which is possibly the most thought-provoking contribution by the author.

There is a lot of value addition one can get from this book .The content and facts are fully justified with simple examples and cases (even has a fascinating poem recounted in the chapter "The Fable of the Bees Replayed"). It is accessible to one and all. I found the language to be very simple and gives a feeling of reading a story book, i.e. the author has tried to make every possible effort so that while reading we may enjoy its flavor of understanding the complex issues in a simple way. If anyone have the anxiety of how the world economy works: interest rates, currency devaluation, credit spreads....and every other term in economics then he must read this book.

Archana Patro is a doctoral student in the area of Finance & Accounting at Indian Institute of Management Indore. She has about four years of teaching experience and has also worked with Bajaj Allianz Life Insurance. Her areas of interest include IFRS, Behavioral Finance, and Risk Management. During her teaching assignment she was also in-charge of the Faculty Development Programs and publication of Institutional journals.

India: An Investor's Guide to the Next Economic Superpower

Piyush Singh

Aaron Chaze, Aaron (2007). India: An Investor's Guide to the Next Economic Superpower, Wiley India. pp. 336, Rs. 399; ISBN: 9788126509355.

"India is a less known and often misunderstood investment location, so a book like Aaron Chaze's performs a useful and timely service: it very well captures and analyzes a lot of diverse and complex material in a single place." - Dr Jon Thorn, CEO India Capital Management Ltd.

This book is written by Aaron Chaze and it is published by John Wiley & Sons (Asia) Pvt Ltd. Aaron Chaze is President of Midas Touch Global Market, a Toronto based investment research and analytics firm that provides customized investment research to hedge funds. He is also an editor of Midas Touch, a monthly e-magazine covering lucrative investment opportunity globally with a special emphasis on the opportunity in India. The book is about investing in what could well be the greatest opportunity in the 21st century. It looks at the potential that India has from a wealth-creating perspective by analyzing its investment opportunities.

The book is divided into three sections. First one is the investment canvas, a guide to wealth creation in India is second and the last one is opportunities and threats. The book is very well structured; the topics covered in the book are arranged in a fashion that the reader gets a clear understanding in a systematic order.

In the initial phase of the book author has quoted that India is emerging as an attractive business destination primarily due to economic and regulatory reforms. The talent pool, largely underutilized in yesteryear, is experiencing a sharp increase in the number and variety of opportunities available to them. The country's intellectual capital is being realized as its biggest assets.

In the coming chapters, the book states that the opening up of the economy has led to the business process reengineering in numerous Indian companies. As a result organization has begun playing attention to corporate governance, value creation and lower cost of funds.

As the book goes forwards author has explained the importance of the government in the growth and development. He has mentioned that the successive government at centre has carried forward the economic reform. This has established the much needed confidence in the business circles.

In the next chapter author discusses the steps that government has taken to encourage privatization in different sectors. While there is a general increment in the productivity, the full potential of privatization is yet to be realized.

Next part of this book has talked about the infrastructure sector development. It is stated that India's infrastructure sector has been attracting FDI in a big way. At the same time the major Indian corporations are looking for strategic alliances all around the globe.

The author has explained that while Indian giants look for the opportunities abroad, the domestic market still remain more lucrative mainly due to rising purchasing power of the masses and the resulting surge in demand for goods and services and heavy investment in the infrastructure development.

In the final session of the book, opportunities and threats has been explicated by explaining the energy security approach adopted by India and creating a sustainable advantage by India and China. In the

initial part of this section author has mentioned that India has enough alternative approaches for fuel and power security. In both the sections parallel study of china and India is provided.

The book provides the observations and experiences about the investment opportunities in India. But still inclusion of some of the in-depth studies and use of a few cases would have made the book more enriching experience and a value addition to serious investors and businessmen.

Finally, for those people who are interested in a great new market but who may not know anything beyond what the newspapers say and lack an understanding of a very lucrative proposition, this book aims to take a gigantic leap in terms of a global investor's understanding of where India stands economically and what its market represents in terms of an opportunity for them.

Piyush Kumar Singh is currently a Doctoral Student in area of Finance & Accounting at Indian Institute of Management Indore. His areas of interest are Risk management in Banking, Banking efficiency and Banking performance analysis. He holds an M.Tech degree in Water Resource Development & Management from IIT Kharagpur.

Rethinking the MBA: Business Education at a Crossroads

Sriranga Vishnu

Datar, Srikant M., Garvin David A., and Cullen, Patrick G. (2010). Rethinking the MBA: Business Education at a Crossroads, Harvard Business Press. pp. 400, Rs. 895, ISBN: 978-1422131640.

What is expected of a vibrant educational program when it is at crossroads? Perhaps, a response which best addresses the expectations of the stakeholders. But, is the program really vibrant per se? How will the management institutions come out clean? These are some of the thoughts which engage the readers while going through the book "Rethinking the MBA - Business Education at a Crossroads". This book sets out to explain why business education is at crossroads, signals some issues and unmet needs that needs to be addressed and provides an insight about the future of MBA program.

Authored by Srikant M. Datar, David A. Garvin and Patrick G. Cullen (all from the Harvard Business School), published by Harvard Business Press this 378-pages of empirical critique is arranged into thirteen chapters and divided into two parts. While Part-1 takes a macro and generalised view of the state of MBA education, Part-2 adopts a case study approach to understand the institutional responses to the external factors shaping MBA education using six business schools as cases in the point. The Business schools selected to study institutional response are University of Chicago Booth School of Business, INSEAD, Stanford Graduate School of Business, Harvard Business School, Yale School of Management and The Centre for Creative Leadership.

The first chapter introduces the problem and profiles the layout of the book. The second chapter describes the changing dynamics of MBA education. Chapter three closely examines the curriculum of MBA programs. Chapter four discusses the criticism of business education, describes its historical evolution and highlights unaddressed issues. The fifth chapter profiles the initiatives of business schools in the areas of globalisation, leadership development and integration.

The sixth chapter highlights innovations in pedagogy and course design with the help of some models and examples.

Chapters seven through twelve fall in Part-2 and are case based descriptions of institutional responses of the six business institutions enumerated earlier. The seventh chapter examines the disciplined-based management education ay Chicago Booth School and highlights the flexibility in course selection.

The eighth chapter profiles the endeavour of INSEAD in making its MBA program global in flavour. With the theme of leadership development at the core, the Centre for Creative Leadership has applied multiple approaches and models. This forms the subject matter of chapter nine.

Chapter ten profiles the case method based general management program at Harvard and the initiatives taken to bring real world experiences into the classroom. Chapter eleven describes the process of development of new curriculum at Yale and its integration with the expectations of the stakeholders. Chapter twelve is on Stanford and focuses on curriculum changes based on customization and level of comfort of the students with the subject. The last chapter concludes the learning and specifically discusses the need for change, curriculum redesign and future challenges for business education. Some of the major discussion points and reflections that attract attention are summarized as under.

1) Introduction of short duration management courses, flexible and customized programs, in-house recruitment and growing criticism that MBA programs do

not add value - all these are taking the sheen off the 2- year full-time MBA program.

2) The flawed concept of B-school ranking has commoditised MBA education. In an attempt to differentiate, top business schools have included creative thinking skills, experiential learning, inspirational leadership, etc. in the management program.
3) Quantitative techniques and case analysis dominate the curriculum. In the process, soft skills get overlooked. A rebalancing of the curriculum is essential.
4) It is not unusual to find MBAs who have a narrow outlook, are inadequately trained in communication and leadership skills, lack multidisciplinary approach and are ignorant about the organizational realities faced by the practising managers. This gap in deliverance and expectations throws up new opportunities for business schools.
5) Proactive management institutions take steps to add flexibility in curriculum design and course selection. The students' interest and requirements are also taken into consideration. This helps in engaging of the students better.
6) Global perspective of business and management, cultural sensitivity, effective leadership and integrative thinking are highly valued propositions. A concerted effort to inculcate such virtues in MBA students is the need of the hour.
7) Innovations in pedagogy and course design should reflect upon teaching objectives and learning styles. They must promote experiential learning and critical thinking in the students.
8) Best known management institutions have carved out a niche for themselves by focusing upon processes, competencies and value proposition that best match their educational philosophy. This apart, they also constantly evaluate themselves and focus on continuous improvement. This explains for their success over the years.

"Rethinking the MBA - Business Education at a Crossroads" is a fascinating book to read and has learnings for management professors, MBA students, corporate executives and entrepreneurs . The ''knowing - doing - being'' framework wherein 'knowing' captures the management and technical skills, 'doing' connotes interpersonal skills and 'being' reflects awareness of self, has been effectively used to clarify concepts. Theoretical concepts are duly supported with empirical findings and case studies which increases validity of the inferences and facilitates better comprehension.

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Guidelines for Author(s)

Research Papers should

- Have a clear statement of purpose.
- Have a clear statement of importance; why the paper was written and what it contributes to the body of knowledge.
- Be well written and readable.
- Present reliable and valid conclusions appropriate to the methodology employed.

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- Manuscripts submitted for consideration for publication in the Journal should be original and not published/submitted anywhere earlier.
- The body of the article should be in Arial with a font size of 11 points. The title of the article should be in 16-font size. The leading (line spacing) should be kept at 1.5 points.
- 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.
- References must be in the APA format and carefully checked for completeness, accuracy and consistency. All the references should mentioned in the body of the text as well as in the reference table at the end of the article.

For the complete authors guidelines, please visit:

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