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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 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 academic journal, we also invite manuscripts from a range of authors. We welcome proposals for special issues from potential guest editors. These could 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

We are pleased to release the first issue of Volume 4 of Indore Management Journal. As in the past, this issue has the usual mix of view points, scholarly articles, management case, perspectives and book reviews.

It is argued that spirituality is the essence of mankind and hence is important for leaders. In his viewpoint, Swami Nikhileswarananda, draws upon the life of Swami Vivekananda to describe how he practiced trusteeship, servant leadership and many such concepts that are increasingly getting important in modern management practices.

In a conversation with Dr. N S Raghavan, an entrepreneur as well as an ardent supporter of entrepreneurship, we try to understand the entrepreneur spirit and the strategies followed by him.

There are two scholarly articles in this issue. Drawing from secondary data, the first article analyzes the structure of cement Industry in India. The second article, following a qualitative research approach highlights the issues faced by organizations during e-HRM systems implementations and proposes a theoretical model to understand the factors influencing the benefit of e-HRM systems.

The management case takes on the challenge faced by the director of Rajas Eye Hospital in regard to the increasing waiting time of patients at the OPD. The commentaries of the case to analyze the case and provide solutions to the above problem.

It is well known that corruption is one of the major impediments in the progress of our nation. The perspective section of this issue carries a set of debates on the theme titled "corruption free India". The authors provide different understanding of corruption and highlight the challenges to make India a corruption free nation.

In addition this issue carries a list of five book reviews. These book reviews cover interesting themes such as Hedgehog effect, multiculturalism, contemporary banking, and Klout, across disciplines such as banking, marketing, organization, society, and leadership.

The editorial team is optimistic that the readers would find this issue enjoyable to read. We look forward to your suggestions and comments to make the future issues of IMJ more relevant.

Editorial Team

Indore Management Journal (IMJ)

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Swami Vivekananda: The Innovator of Management Values¹

Swami Nikhileswarananda

Swami Vivekananda was not only a multi-faceted personality but was also far ahead of his times. Swamiji understood the problems facing humanity. Through the cause and effect method he traced the problems and provided solutions which served beyond immediate relief and farther into the future. He was a social reformer, a nationalist, and a management specialist. His concern was to elevate human kind and subsequently conquer all environments and circumstances. These unique qualities made him a leader of the supreme kind. Any block to human progress was his concern and he brought his great mind and heart in pointing out the obstructions and thereby providing solutions.

Today we talk about globalization but Swamiji spoke of globalization more than a century ago. He said, 'Even in politics and sociology, problems that were only national twenty years ago can no more be solved on national grounds only. They are assuming huge proportions, gigantic shapes. They can only be solved when looked at, in the broader light of international grounds. International organizations, international combinations, international laws are the cry of the day. That shows the solidarity' (CW 3.241). Globalization needs a globally acceptable icon like Swamiji, who not only travelled across the world extensively, but also understood the nations- their people, history, culture, ideals, and hence their wants. Swamiji was certainly pre-eminently qualified for this, for he did not just look at things from the surface but from within and sometimes from deep within. It is only such personalities who can think of oneself as a human being and as part of a human civilization that can inspire people to think in such terms. This is the fulcrum of building a global citizen who can only think of globalization and can work for global peace, prosperity, and progress. It must

be always remembered that many great leaders came with temporal powers and vanished without making any lasting contribution to humankind. Swamiji's vision of globalization and global civilization was always spiritual that can permanently benefit and change humans. He said, "Doubtless I do love India. But every day my sight grows clearer. What is India, or England, or America to us? We are the servants of that God who by the ignorant is called MAN. He who pours water at the root, does he not water the whole tree?" (8.349).

Corporate Responsibility

When we speak of Swamiji as 'the Great Innovator of Management Values', we must remember that during Swamiji's time the science of management did not exist. Generally management is nothing but organized common sense, and that is from time immemorial. When nations became industrialized and new markets and products were discovered, industries and companies grew and exploited labour; tycoons and powerful politicians started making the rules and therefore money. The science of management started only after the World War I. It first went into organizing labour, work measurement, work study, production, and productivity. Then slowly other departments came up. Peter Drucker in *The Best of Peter Drucker* says, "We made a mistake, I do not know from why and where, from 1930 we started making a mistake that equating management with only business management, but business management is only one part of the management."

Latest Management techniques like 'values-based management' that we know, Swamiji unconsciously practised them. There is a beautiful book called *The Power of Ethical Management* by Kenneth Blanchard and Norman Vincent Peale, where it is written on the cover 'You need not cheat in order to win'. And one of the paragraph starts with the sentence 'To work only for

¹ Address delivered in the 5th edition of National Youth Conference of Indian Institute of Management, Indore at IIM Indore campus on January 10, 2013.

profits is like playing tennis with your eyes on the scoreboard rather than on the ball.' Therefore we have to give emphasis on values. Second, not only profit, but the method in which we are making that profit. Swamiji opines about the value-based management that *if one really wants to succeed, one must have credibility. Credibility will come when one practices values.* And his words are proving prophetic.

In a globalized business environment following companies survive. The companies that have credibility, that believe in quality, that believe in total quality management (TQM), that believe in zero defect, that believe in quality and at the same time deliver on schedule, that believe in giving the product at the most competitive price, and that believe in productivity. Rest wipe out. In a long run, values that give the credibility only survive. In the long run those without credibility disappear. Today we are talking about corporate responsibility, which has become the need of the hour. Swamiji spoke about this social responsibility and corporate responsibility centuries ago.

Azim Premji was once asked during an interview by India Today. 'What is the secret of your success?' He answered, 'I believe in practising values.' And then he said 'I believe that the principle of trusteeship management is very relevant today.' If a multinational company wants to have success, it must practice trusteeship management, which was popularized by Mahatma Gandhi. But though it was popularized and practised by him, many people do not know that it was first articulated and introduced to the erstwhile business community by Swamiji.

Trusteeship Management

John D Rockefeller was one of the richest persons in the US who monopolized the oil industry. He was undergoing a very critical phase of his life in the 1890s. It was the peak time of his business. Swamiji once visited Chicago as the guest of a friend and a business associate of John D Rockefeller and who spoke highly of Swamiji. He often invited Rockefeller to visit Swamiji. One day, though reluctantly John D Rockefeller was persuaded by an impulse and went directly to the house of his friends. Excitedly brushing aside the butler who

opened the door said that he wanted to see the Hindu monk. The butler ushered him into the living room and not waiting to be announced, Rockefeller entered into Swamiji's adjoining study room and was much surprised to see Swamiji behind his writing table not even lifting his eyes to see who had entered. After a while, Swamiji told Rockefeller much of his past that was not known to anyone but him only. Swamiji made him understand that the money he had already accumulated was not his. He was only a channel and his duty was to do good to the world. Swamiji said that God had given him all his wealth as an opportunity to help and do good to people. Rockefeller was annoyed on Swamiji's courage to instruct him that way. He left the room in irritation, without a proper farewell. But about a week after, again without being announced, he entered Swamiji's study. He found Swamiji the same as before. He threw on his desk a paper which told of his plans to donate an enormous sum of money toward the financing of a public institution and said "Well, there you are, you must be satisfied now, and you can thank me for it." Swamiji didn't even lift his eyes, did not move. Then taking the paper, he quietly read it and said, rather it is for you to thank me. That was all. This was Rockefeller's first large donation to the public welfare.' ... We all know that Rockefeller was peculiarly religious. Once, almost echoing Swamiji, and explaining the reason behind his monumental philanthropies he said, "There is more to life than the accumulation of money. Money is only a trust in one's hands. To use it improperly is a great sin. The best way to prepare for the end of life is to live for others. That is what I am trying to do." (New Discoveries 1.487-8)

The principle and the seeds of trusteeship management are all in our scriptures. Isha Upanishad says: "All this- whatever moves on the earth-should be covered by the Lord. Protect (yourself) through that detachment. Do not covet anybody's wealth (Or-Do not covet, for whose is wealth?). The whole world is one. It is a holistic universe." Today, modern science has also proved it. In Physics, Bell's Theorem states '*all the particles of the whole universe are interconnected at a deeper level*'. That has also been verified experimentally. Schrodinger says, '*Consciousness is a singular of which the plural is unknown.*'

The whole world is permeated by one universal consciousness.

So what happens? '*Tena tyaktena bhunjitha*; which means enjoy yourself by renunciation.' How can I enjoy the world by renunciation, by giving up? One has to give up the idea of proprietorship, attachment, and selfishness. They cause sorrow. You need not give up your expensive car or your latest mobile or your latest designer clothes or the penthouse. No. What you have to renounce? *Ma gridhaha kasyasvid dhanam* which means do not covet others wealth.' Today all over the world so many rich people suffer, in spite of the wealth, only because of this. They are not able to give up the attachment to their wealth. They are not able to make charity to others. They are having a lot of money but they are suffocating because they are not having a free flow of that economy. Swami Vivekananda said, "*Unselfishness is more paying in the long run. Unfortunately people do not have the patience to practice it.*" Swamiji also says, "*You vacate the air out of this room. Fresh air will come automatically. Once you start giving charity, more will come to you, more will come to you.*"

The unselfishness and giving back to the society is a must. If you want happiness and peace, you must donate some percentage of your income in charity, after ensuring that it goes to the proper place. Many firms now run their own trusts and NGOs. If it goes to the proper recipients, you will get the blessings of those people and blessings of the Lord, who is present in those poor people. The blessings of Lord will bring immediate peace of mind. So, even this concept of trusteeship management and corporate responsibility that is now popularized by others was first introduced by Swami Vivekananda.

Servant Leadership

Another term 'servant leadership' is becoming very popular worldwide. Robert Greenleaf started this concept in 1976 in America. But now it is catching up all over the world. What is servant leadership? Servant leadership is, not taking the credit as a leader. You inspire your colleagues, you inspire your subordinates, not by preaching, but by your own example and by not mere dictating them. Just share your ideas with them,

inspire them and not order them. And this way you serve.

There is a beautiful book by Peter Drucker, *Managing In The Next Millennium*, where he says, managers and executives are going to be more and more ineffectual, with no authority whatsoever over their subordinates in the 21st Century. You can also experience that as no more you command absolute obedience from your subordinates. Peter Drucker further attributes it to upcoming knowledge society. The 21st Century is going to be a century of knowledge. Previously, the people you were working with were all blue-collared employees. Very few of them were in white-collared jobs. Now, on the contrary, most of them are white-collared employees. The blue-collared jobs are being done by computers and some of them are computer experts, IT Professionals. How do you control them, who have better IQ than you? You will not be able to control them through power and position and through order. But you can control them through love and the attitude of service. That is the new concept of management that is coming up.

Swamiji practised servant leadership more than 100 years back, when he started Ramakrishna Mission. Sri Ramakrishna gave the following message to human kind "*Shiva Jnane, Jiva Seva*" which means that the Lord is present everywhere but the greatest manifestation is present in each and every human being. Swami Vivekananda explained the message, wrote to his Gurubhais in a beautiful letter. He wrote, "*so far you had heard the mantras. What are the mantras you had heard? Matru Devo Bhava, Pitru Devo Bhava, Acharya Devo Bhava, Atithi Devo Bhava. I am giving you some additional mantras, which are more important for the modern age. Daridra Devo Bhava, Rogi Devo Bhava. Worship the Lord who is present in the poor people; worship the Lord who is present in the sick people.*"

It is an act of serving the God in human form. We are not doing social service. We are trying to worship the God, who is present in the temple, in the church, in the mosque, the same god is present in the poor people and in the sick people. So Swamiji gave that new mandate, Work is Worship, not just by false imagination of work is worship. No! He did not acquit it that you just pray

to Lord and then you offer your fruits to the Lord. That is Gita way of worship, converting work into worship. But Swami Vivekananda gave a new, holistic way of converting work into worship. According to him, *the same Lord is present everywhere, it is the one universal consciousness present everywhere, inside every human being and so what happens if one and many be the same reality. It is not only all modes of worship, but all modes of work also become worship.*

According to Sister Nivedita, *"This is the realization, which makes Vivekananda the great preacher of Karma, not as divorced from, but as expressing Gyana and Bhakti. To him, the workshop, the farmyard, the laboratory are as true and fit scenes for meeting God with man as the door of a temple or the cell of a monk."* So the whole thing becomes a very sacred thing. No difference henceforth between sacred and the secular, Nivedita says. Everything is sacred. To work is to worship. To labour is to pray and to renounce is to conquer. There is no difference between sacred and secular. This symbiosis between sacred and secular is the greatest gift of Swamiji to the modern age. According to him, this is the message of practical Vedanta. By application of this Vedanta, a fisherman will become a better fisherman, a manager will become a better manager, an executive will become a better executive. Wherever you are, by the application of this Vedanta you develop that supra efficiency.

This is a version of servant leadership, which was practised by Mahatma Gandhi and by Swami Vivekananda. When Swamiji drafted the trust deed of Ramakrishna Math, he made his brother disciple, Swami Brahmananda as the first president. He did not become the first president, he did not take the position and power.

Efficiency

The Bhagavad Gita says 'Possessed of wisdom, one rejects here both virtue and vice. Therefore devote yourself to (karma) yoga. Yoga is skilfulness in action' (2.51). Hundred percent efficiency; zero percent defect. That is how work gets converted into worship. Work can be converted into worship with full concentration, with hundred percent efficiency. But most important is the attitude and the correct attitude which is: I am

worshipping God who is present in the human form.

Inside each human being there resides the Atman. Why we do not realize this Reality is because of the many layers of delusion. In some the covering is thin in some it lies thick. But the covering does not affect the Reality in any way. That is why Swamiji said: *'Ye the children of immortal bliss, holy and perfect beings. Ye divinities on earth - sinners! It is a sin to call a man so; it is a standing libel on human nature. Come up, O lions, and shake off the delusion that you are sheep; you are souls immortal, spirits free, blest and eternal; ye are not matter, ye are not bodies; matter is your servant, not ye the servant of matter.* It is for this worship of the God in human beings that Swamiji started Shiva jnana, Jiva seva.

And Swamiji worked to bring this truth to the people: *'It may be that I shall find it good to get outside of this body, to cast it off like a disused garment, but I shall not cease to work. I shall inspire men everywhere until the world shall know that it is one with God.'*

That is what Swami Vivekananda says. What is the secret of leadership? He said, this is what is leadership: *Jo Sirdar, woh hi Sardar. Kaun sardar ban sakta hai...jo sir de sakta hai.* One who sacrifices his ego, one who sacrifices his selfishness, one who can sacrifice his prejudices, he alone can become a successful leader. *Jo Sirdar, woh hi Sardar.* For sacrificing, he was ahead, for getting the benefit, he was the last.

Then Swami Vivekananda said, "I have done enough for next 1500 years. Whatever the message I have given, it will take 1500 years for us to implement that message. So much of homework he has given to us and implementing each one of his ideas is a big thing. Not only that he talked theoretically, he put a machinery to demonstrate this model of, whether really this worship of God in man can be done? Yes, here is Ramakrishna Mission. The monks, who are supposed to meditate in the Himalayas, the monks, who are supposed to only meditate and take the name of the Lord are now going to the slums and wiping the tears of the widowed people, wiping the tears of the afflicted people, educating the poor, educating the masses, educating the women, this is what was never thought of. Swami Vivekananda was a revolutionary monk. He gave a new mantra:

Atmano Mokshartham, Jagadhitaya Cha. Yes, *Atmano Mokshartham* will be there. But not by remaining in the cave, not by remaining in the Himalayas, not by going to the forests but by remaining in the society and by serving it. So he was a leader, he was a visionary; not only visionary, a missionary, he started it and he gave the mandate: *Shiva Jnana Jiva Seva*. Worship the God in man. Not only that, he gave that emblem. He said emblem should be such that, that is the registered emblem. Nobody else, no other organization can use this emblem and he said, emblem should be such, that by that emblem you get the whole philosophy of Ramakrishna Mission or of Swami Vivekananda. By combination of four yogas: raja, bhakti, jnana, and karma. Swami Vivekananda Said, "EACH soul is potentially Divine. The goal is to manifest this Divinity within by controlling nature, external and internal. Do this either by work or worship or psychic control or philosophy- by one or more all of these- and be free. This is whole of RELIGION."

This is the whole of religion. Dogmas, rituals, worship, temples, churches, mosques are but secondary details. This is the best way to develop SQ. There is a book "SQ, spiritual intelligence, the ultimate intelligence", where Danah Zohar says "neurologically, physiologically, biologically, psychologically, from every point of view there is concluding evidence, there is something called SQ, which is the basis of both IQ and EQ." What is IQ? IQ will tell you how to play the game of life. What is Emotional Intelligence? Daniel Goleman made a research in 1991 and said EQ is more important than IQ. EQ will tell you how to play the game of life. Under changed circumstances, with changed strategies. And what is SQ? SQ will tell you whether to play the game of life at all or not. Well, that is your choice. What is the meaning of life? What is the purpose of life? That will be told by SQ. And she has given various measures of developing SQ. But you will find that the Western models of SQ developments are not so effective.

But Swami Vivekananda gives a very comprehensive technique of developing this SQ. One way is combining four Yogas in daily life. Just a little bit of meditation morning-evening; little bit of prayer morning and evening; little bit of inspirational reading morning and

evening and converting the work into worship. Thus, thinking that it is worship of the Lord. This is the fundamental way in which we can convert work into worship, in which we can practise this holistic management in our daily life by combination of four yogas.

The Goal is to manifest this divinity - that is infinite joy, infinite happiness and infinite peace. Then only you can keep smiling. When we practice these four Yogas and there is peace inside. Otherwise, you are bubbling from within, why my wife did not prepare this food for me, this particular dress for me and you are bubbling from within and what type of food she gave in the morning this breakfast, what a wretched breakfast she had given to me. You are bubbling from within, you are cursing your wife, your children, this and that and you are full of tension. How can you smile?

So smile will come when you have got this happiness from within, peace from within and that will come by practising these four Yogas, when you develop IQ, EQ and SQ and then you get total success in everyday life and you get eternal happiness and eternal peace and eternal life. Danah Zohar says *that... one of the most important persons, the pioneers, who practised this servant leadership in our own age was Swami Vivekananda.*

Become Universal

Swami Vivekananda had a very broad spectrum. He practised servant leadership and advocated trusteeship management. He was a global leader was a visionary and a missionary. Whatever he had told, has come true.

Swami preached to take the best of everything. He wanted both the eastern and the western thoughts should combine. He said we need western science coupled with Vedanta. Good things we must learn from other countries. But he also warned against blindly imitating the western materialistic culture, which is giving rise to so many suicides and mental patients. We have our own nectar of Indian spiritual culture. Of course, good things we must learn especially as far as modern science is concerned. Swami Vivekananda once travelled from Japan to Chicago with Jamshedji Tata. Swami Vivekananda inspired Jamshedji Tata to not to go for

imports. He told him to start industry in our own country so that we can give employment to our own people. He also gave him inspiration to start Indian Institute of Science at Bangalore. This is when he was travelling in the same ship with Jamshedji Tata. Jamshedji Tata was going for that International Fair that was going to happen and Swamiji was going for participating in the World Parliament of Religions. But Swami Vivekananda was so broad minded, so open-minded and so modern even then that he was far ahead of time.

Swamiji talked of Globalization during his time. According to him, science and technologies are must if you want to develop. Science and western science coupled with Vedanta, is what Swami Vivekananda emphasized. So he had a global perspective and that is why Federico Mayor, the Director General of UNESCO on the occasion of Centenary of Swami Vivekananda's participation in Parliament of Religions (1983) in 1993 said, 'why we are celebrating Swamiji's participation in Parliament of Religions, why UNESCO is celebrating?' And he gave the following reason. He said, 'when I went through the constitution of Ramakrishna Mission, that was drawn by Swami Vivekananda in 1897, I was surprised to see that that Constitution was exactly similar to the Constitution drawn up by the UNESCO in 1945.' Swamiji talked about the harmony of religions, serving the poor, and taking care of the underprivileged in 1897. And hence Federico Mayor said 'that is why, UNESCO is the proper place to celebrate Centenary of Swami Vivekananda's participation in World Parliament of Religions'. And now UNESCO is celebrating the 150th Birth Anniversary of Swami Vivekananda. So Swami Vivekananda is very relevant today.

When we go to the villages, the villagers doubt our intentions to be selfish. And we always admit that we have surely come with a selfish motive. We then explain the selfish purpose. We tell them we have all renounced the world. We have given up our parents, our children, our family members and everything. We have sacrificed

everything so that we can realize God in this very life. Atmano Mokshartham. But if you want to reach God quickly and get salvation and infinite joy and happiness, the best way is to worship God in human beings.

Swami Vivekananda was a multi facet personality. A. L. Basham, one of the greatest historians of our times said in 1963, 'it is very difficult to evaluate the importance of Swami Vivekananda in the scale of history as we are very near to his times.' Perhaps the future generations will be able to understand the importance better. We are even after 150 years also telling the same thing. We are too near the history to evaluate the importance of Swami Vivekananda. But we can hope that the future generations will be able to do the justice.

Swami Nikhileswarananda is the Head of Vadodara centre of Ramakrishna Mission. He graduated in Chemical Engineering (with honors) in 1970 and post graduated in Industrial Engineering in 1972. After working for a short period as a Management Consultant, he renounced the world and joined Ramakrishna Order at its Headquarter at Belur Math in 1976. From 1977 to 1986, he guided the rural and tribal development project titled, 'Divyayan Krishi Vigyan Kendra' at Ranchi (Jharkhand). From 1989 to 2000, he edited the Gujarati Monthly 'Shri Ramakrishna Jyot' published from Shri Ramakrishna Ashram, Rajkot (Gujarat). Before coming to Vadodara he was the Head of Porbandar centre for eight years. He was instrumental in constructing 37 school buildings and three colonies in Porbandar district as a part of earthquake rehabilitation project and in starting Vivekananda Institute of Value Education & Culture (VIVEC) which was inaugurated on January 12, 2006 by Dr. APJ Abdul Kalam, the then President of India. He tours extensively preaching the universal message of Vedanta in India as well as abroad. He has contributed a large number of articles on various topics in English, Hindi and Gujarati journals. He was one among the few selected Hindu leaders invited to participate in the Hindu-Catholic dialogue which took place in Mumbai on June 12, 2009 at the instance of the Pontifical Council for Inter-Religious dialogue headed by Cardinal Tauran, the representative of the Pope from Vatican.

Conversation with N. S. Raghavan

Shubhabrata Basu

N.S. Raghavan is the co-founder and former Joint Managing Director of Infosys which was founded in 1981. NSR, as he is known, took voluntary retirement from Infosys in 2000 to promote his vision of entrepreneurship and India-based global companies on a broader scale. To help create world-class enterprises and to support Indian entrepreneurs, he, along with a few associates, started the Nadathur Holdings & Investments. Today, the Nadathur Holdings & Investments supports a portfolio of over seventeen companies across industries such as Life Sciences, Information Technology, and High-End Engineering Services and Hospitality.

To encourage entrepreneurship in the country and help incubate start-ups, he helped set up the N. S. Raghavan Centre for Entrepreneurial Learning (NSRCEL) at Indian Institute of Management, Bangalore (IIMB) with the vision "To be a world class centre of excellence for seeding, nurturing and promoting entrepreneurship with emphasis on startups and existing organisations with growth potential". NSRCEL was set up with a contribution of US\$ 2.7 Million by N S Raghavan. NSR received the Dhirubai Ambani Award for Excellence in Entrepreneurship for the year 2004 on the 57th Independence Day of India banquet held in Los Angeles. He was invited as the chief guest at IIM Indore to deliver the 13th Foundation Day Lecture. The following excerpt is based on the conversation between Mr. Raghavan (NSR) & Shubhabrata Basu (SB), Faculty Member of Strategic Management Area, IIM Indore.

SB: Why did you choose to retire from the active management of Infosys?

NSR: I was the first employee of Infosys when Mr. Narayan Murthy founded the company from Patni Computer Systems. I was therefore one of the seven founders of Infosys. There were no specific reasons why I left Infosys being the Joint Managing Director of the Company. Infact Narayan Murthy was apprehensive that, with Nandan Nilekani succeeding him and me leaving

the company, there would be wrong signals into the market. So he made me take a pledge that I shall not leave the company within 2 years after Nandan takes charge. Nandan was not willing to let me go - but I convinced him to relieve me. I wanted to do something on my own that was different from the routine job of an executive. But I did not have the clarity as to what that would be.

SB: What were the sources of inspiration for your business?

NSR: Nadathur Estates Pvt. Limited is currently in a nebulous stage and it will take another couple of years to put the formal structure in place. After I retired from Infosys, I did not have clarity as to what I wanted to do. I wanted to do something different - but that's it. Fortunately, I had some reputation in the market and many budding entrepreneurs would come to me, seeking advises on how to start up their business. In some instances, I actually gave some money to them to set up their own businesses. I did not expect any returns from them at that point of time. Slowly things started formalizing once I entered into this relationship with IIM Bangalore. My company is an experiment that I am carrying out.

SB: What is the growth plan for your business?

NSR: From my earlier experiences with the budding entrepreneurs and also at NSRCEL, IIM Bangalore, I was increasingly convinced that a structured approach towards entrepreneurial development was needed. I was giving seed money and in many of the ventures, I did not even recoup my investment let alone think about the returns on investment. There were however some ventures, that really performed very well. I was increasingly thinking of forming a venture myself that will provide financial and consulting services to these new startups. My brother-in-

law who is a Chartered Accountant, helped me in organizing my financial matters. However, I needed some fresh blood. I asked my two sons to help me. But, I did not force my will on any one of them. My elder son specialized in life science area in the United States while my younger son had done his MBA and is into the hospitality sector in Singapore. They took their time and once they were convinced, they joined me in India. I am now in the process of converting my venture into a formal Family Business Enterprise that shall cater to the need of service sectors in India.

We have already invested in several successful startups and sold some of these businesses as well to the more established players. Mr. Gopal Krishna had been one of our clients who bought Meta Helix, a hybrid seed business, set up by employees of Monsanto Corporation.

We have set up a formal venture capital fund named OJAS in 2007 with a seed fund of \$35 Million. The firm focuses on investing in India-centric and early stage technology companies. To incorporate best practices, and institutionalize our investing model, we have brought together a professional team recruited from across the U.S., Europe and India. Further, to complement the above, we have put together a network of industry veterans who can offer advisory support to the companies.

The OJAS portfolio of companies includes startups that are creating new technologies (with significant intellectual property) as well as those that are using technology to offer a service. The portfolio today spans the domains of telecommunications, banking, consumer goods, internet and mobile, semiconductor and services. Ventures include CoCubes, India's only online end-to-end campus engagements and recruitment platform, Vizury, and internet marketing company using a proprietary behavioral targeting and dynamically creative technology, BrizzTV, a data channel provider for

television networks, and Teli-Brahma, a targeted advertisement, lead generation and marketing platform using mobile channels

SB: What are the constituent parts of your business - how do you describe them?

NSR: I perceived our business to encompass three segments (i) Social segment, (ii) Entrepreneurial segment and (iii) Family Office segment. These three segments operate in independent domains and consequently our investment patterns in them are also different. The social segment is guided by more philanthropic orientation and we look into aspects like livelihood, arts, education and conservation. Our involvement with F.A.M.E. INDIA®¹ is an example.

Our Entrepreneurial segment looks into Angel and Venture Capitals, and Strategic Businesses that have a long term planning horizon. In this segment, we cater to businesses that involve direct investment, healthcare and life-science platforms, IT & ITeS business and Hospitality business. These are somewhat known sectors with established business models that need managerial refinements.

Our third segment is the Family Office segment that looks into the real estate and alternative investments, public and private equity, debt capital and so on. These are pure asset cum wealth management businesses that tend to maximize the family's wealth, wherever and whenever the opportunity presents itself. We have invested in Bombay Stock Exchange (BSE), shipping companies, McDonald franchise etc. However, we try to avoid sectors that, we perceive, are against our value systems and ethos.

SB: While you started operating at the financial holding level, you gradually moved into the actual operations level. Why?

NSR: That is true. As I had said earlier, I started rather informally and hence there were lots of scope of

¹ Foundation for Action, Motivation and Empowerment, India. Source: <http://www.fameindia.org/> accessed on 22.10.2012.

experimentation. Some of the failed ventures seriously made me think that possibly we need to be involved more closely with the entrepreneurs than would otherwise merit. The entrepreneur has some idea and at best he/she also knows how to put that into action as well. However, finer details of the same, for most parts, were missing. It is there that we decided to pitch in and advise the entrepreneur as to what needs to be done.

However, we found that we are sadly lacking those relevant operating knowledge. Therefore we decided that we should ourselves first build up our own capabilities before we can successfully give the same to the startups. Hence we decided to move closer to the operational details rather than operate at a superficial financial level. The benefits are likely to be many.

First, it will provide us with a better selection mechanism or criteria to evaluate the potentially successful ones from the potentially disastrous ones. That way, we don't stand to lose our investment. Secondly, it will provide us access and insights into some of the potentially promising and profitable sectors themselves. Last but not least, we shall be better poised for the spinoff benefits and diversifications. A hands-on experience always counts in matters of business.

SB: Across the globe, family businesses are professionalized. You moved the other way. Why?

NSR: As I said earlier, I did not see this as an extension of my professional life. Rather a pastime avocation that crystallized into business. Consequently, professionalism came but in a different manner. I had been a professional manager throughout my career but in different companies. Hence this is different. But here too we will be bringing professionalism in a family business.

SB: What had been your guiding philosophy and how had it helped in shaping your company?

NSR: I was a graduate in Electrical Engineering, and as per the social norms of those days, I secured a job as an engineer at the Andhra Pradesh State Electricity Board (APSEB). I worked in APSEB for nearly 2 years and decided to quit the job as I was stagnating and not learning anything new. Subsequently, I saw this advertisement from Ministry of Defense, Government of India, for the Corps of Electrical and Mechanical Engineers. I was anyways not doing anything - so I decided, why not give it a try. After all, it would take only a forward and a return journey by train from my native place to New Delhi. So I boarded the train. I gave the interview, was selected and was asked to report at Agra which happened to be my first place of posting. I had no knowledge in Hindi. Neither could I read it, nor speak it fluently. Consequently, it took me quite a while and the help of a good samaritan to finally reach the place where I was asked to report.

I worked with the Ministry of Defense for nearly nine years, got married during that period and traveled to many places to give training or to get trained. But here again the same feeling of stagnation started creeping in my mind. The Corp of Engineers was not exactly the blue eyed boy in the army. We had a side role to play and hence stagnation was the final outcome. So I decided to quit. My father in law was very upset as he perceived this to be an unnecessary risk on my part. I told him that he had already taken a bigger risk by marrying his daughter to me. So I left the Government job and joined the corporate world.

I worked for a while as Head of the Electrical Department in Kothari Sugar and Chemicals Ltd at Trichy, before relocating to Pune. It was at Pune that I came across Narayan Murthy who was working with Patni Computers. We needed to write software codes and there was a dearth of good code writers in India. That's when Infosys came up. Murthy wanted me to join him in forming a software consulting company that would give rise to a whole new sector. That was

in the year 1981. I became the first employee of Infosys and my house became its registered office although the entire operation was based out of Murthy's house in Pune. Infosys pioneered the Global Delivery Model by taking jobs from the US and finishing the same in India. I was with Infosys till 2000 when I retired as the Joint Managing Director with Nandan as the CEO.

After my retirement, I worked with the Murugappa Group as their Executive Chairman at the behest of Mr. Subbaiah. They were looking for a CEO and the news that I was free was there. So they approached me. I however made it clear that I had not retired from one company to become the CEO of another. But Mr. Subbaiah genuinely needed my professional help as he envisioned a relegating role for the family members to be supplemented by professional managers. I was happy to render them some help. Subsequently, I opened the NSRCEL to encourage and support upcoming entrepreneurs and start ups.

SB: What are the unique Human Resource Practices in your company?

NSR: We are a service company and therefore human resources are very important to us. We believe in the twin pillars of equality and encouragement. Very often, employees fall prey to group effect. Someone belongs to a particular group and therefore may face the consequences of the group effect. This is more pronounced in the family business set up where some managers professing allegiance to some member of the family may unduly influence courses of actions. I strictly discourage such incidences. To me, managerial effectiveness is a function of individual efforts. Likewise, I believe in active encouragement of my employees. There are two ways of managing people. First, is by highlighting his mistakes or shortcoming and therefore controlling him. This only serves to alienate the employee and in the long run yields no results. The second method involves, actively encouraging his achievements and motivating him or her to give the best shot that he or she can offer. Encouragement and motivation helps in the long run and prevents

attrition. After all, if someone sees the good things in an organization and grows a liking for the same, he shall seldom leave that organization to tread unknown territories. I prefer the second approach in my company.

SB: Going forward, what will be your word of advice to young and would be entrepreneurs of India?

NSR: Throughout my professional career and even now, I have done what I felt like doing. I have done what my heart permitted me to do. Therefore, even now, when we see a business opportunity that does not match our ethics and value systems, we do not engage in them. Business of making money is easy but the business of sustaining the process of making money is difficult. That is because we operate in a society where social values matter. Our own family business is at a nebulous stage. It will possibly take a couple of years to stabilize and attain a structure. But that structure shall reflect the strong value system that we believe in.

Epilogue: Mr. Raghavan, on behalf of IIM Indore, I thank you for your words of wisdom. I am sure, young entrepreneurs and academicians in management shall benefit from your experience, insights and active interventions in the society at large.

N. S. Raghavan is currently a Non-Executive Director of Corporate Board in ABB India Limited. He has served as a Non-Executive Director of Corporate Board in IDFC Private Equity Ltd, Murugappa Corporate Board, and Sobha Developers Ltd. He is the founder Director of Nadathur Estates Pvt Ltd, founder Chairman of Nadathur Fareast Pte Ltd, Singapore, chairman of Indegene Lifesystems Pvt Ltd., and the founding Trustee of FAME India, (Foundation for Action, Motivation & Empowerment).

Shubhabrata Basu is an Associate Professor in the Strategic Management Area of Indian Institute of Management Indore. He is a Fellow in Management from Business Policy Area of IIM Ahmedabad. A Civil Engineer by qualification, Shubhabrata has worked in industry as well as in the Civil Services of the State of West Bengal for nearly a decade before moving to the academics. Shubhabrata has peer reviewed publications, monographs, and working papers to his credit. He is a member of the Strategic Management Society (USA) and Institute of Engineers (India).

An Analytical Study of the Changing Structure in the Cement Industry of India

Jayanta Nath Mukhopadhyaya, Malabika Roy and Ajitava Raychaudhuri

Abstract

Unlike most sectors of the Indian economy, which are small players in the global arena, the Indian cement industry is second largest in the world. In this paper, we have attempted to evaluate the effect of deregulation on the performance and structure of the Indian cement industry. Concentration measures after liberalization fell indicating increased competitiveness. However, this trend was reversed later, primarily due to significant increase in capacity by larger firms. An analysis indicate that there sharper movement in the measure of inter-temporal mobility for the firms in the top two quartiles than in the total set of firms. The study found that there has been a structural break in the market share pattern for many companies. The four firm concentration is more than 50 percent and two dominant groups have emerged accounting for more than 40 percent market share. Some policy implications follow from this study.

Keywords: Deregulation, Cement industry, Concentration, Structural break, Competition.

1. Introduction

Few will dispute the statement that the economics of industry is an under researched area in India. There have not been many comprehensive studies of major individual industries. The cement industry of India is large; even by the global standards it is the second largest in the world, larger than that of USA and Japan. Also the existing published studies have not in general, focused on the post 1989 period, when the cement industry was fully decontrolled. The cement industry is considered an engine of domestic growth with its strong linkages to the infrastructure and housing sector.

In this paper, we study the structure of the cement industry focusing on how the concentration of market share has changed over the period. Though the cement industry in India is fragmented with large number of players, yet general reports¹ would mention that there

is dominance of the top firms and the structure of industry is oligopolistic. In this paper, we propose to measure the changes in concentration in the cement industry in an attempt to address the vagueness in the existing understandings. We examine whether the cement industry has been an oligopoly and explore the direction in which it is moving.

In a study, Azzam and Rosenbaum (1996) found that past estimates of the critical concentration ratio supported the hypothesis of only two structural groupings: competitive versus non-competitive. In view of the spectrum of competitive conducts allowed by oligopoly theory, they felt the validity of the two groupings is restrictive and needs to be tested. Using data from the Portland cement industry, this paper conducted such a test, employing a non-linear switching regression technique based on the logistic function. In the paper, the hypothesis of two structural groupings is not rejected.

In a pioneering work in India, Gokarn and Vaidya (1993) made an attempt to evaluate the performance of the cement industry after decontrol and found that the structure of the industry had undergone a qualitative change. They found that the structural variables in the cement industry have been far from stable. The concentration ratio has been changing; the technology has undergone a sea change; the nature of government controls faced by the industry has also been changing.

In another study by Jha et al. (1991), analysis was conducted at the aggregate level and covered the period 1960-61 to 1982-83. They found that that this industry is characterized by allocative efficiency. Pradhan (1992) had raised doubts about the success of the decontrol of the cement industry because he found that the decrease in concentration has fallen after the decontrol.

¹ Research reports on cement by ICRA 2006 and CRISIL 2009.

Mukhopadhyaya et al. (2007) had found in their study focusing on the period (1989- 2003) that the capacity addition per year in the cement industry had accelerated during the period of partial decontrol and increased further during the period of total decontrol. The four firm concentration which had started to go down initially, after the period of decontrol started going up again forming a U-shaped curve.

In this paper, we focus on the post 1989 period, when the cement industry was fully decontrolled. So far as the cement industry is concerned, there are only a few detailed studies of the industry in India in the post decontrol period. The capacity addition in 7 years after a period of total control (1982-89) was more than the capacity growth in nearly 70² years during the period of total control. The period of full decontrol commenced from 1989 and the capacity, which was 59 Million Metric Tonnes (MMT) in 1989 more than doubled to quickly reach 120 MMT by the year 2000 and reached 200 MMT by 2008. In the following sections, we first describe the structure of the industry and then calculate commonly used measures of concentration which, along with other indicators that are used by the USA Federal trade commission also.

The paper is organized as follows. Section 2 discussed the structure of the cement industry. Section 3 studies the changing pattern of market concentration in cement industry. Section 4 presents a detailed analysis after breaking up the dataset of companies into different quartiles based on their market share. In Section 5, we have studied the changes in the rankings of the cement companies from 1989 to 2006 and also analyze the index of rank concordance to understand the mobility of ranks. In Section 6 we have used the Chow test to structural breaks at the firm level. We Conclude with the implication of the study.

2. Structure of the Cement Industry

The cement industry had an installed capacity of around 171 million tonnes per annum³ (mtpa) at end-March 2006 with large cement plants accounting for 93percent

of the total installed capacity in India. The installed capacity is distributed over across approximately 130 large cement plants owned by around 52 companies. The structure of the industry is fragmented, and can broadly be classified into three categories namely companies with all India presence, regional presence and marginal presence.

The first category consists of two groups with all India presence viz., Holcim (the Swiss multinational) controlled ACC and Ambuja cements; Aditya Birla group controlled Grasim Industries, Century Textiles and UltraTech Cement. The second category consists of companies whose presence is restricted to one region but with a stronghold in markets of their respective operations. This segment includes firms like Lafarge (east), India Cement (south), Shree Cement (North), Birla Corp (north and east), Binani Cement (north and west) and Madras Cement (south) etc. The third category consists of small companies with marginal presence, constituting the balance capacity of the Indian cement industry. Companies like CCI, J&K Cement, Panyam Cement, Penna Cement etc fall in this category.

The trend emerging from table 1 is that regional companies and national level companies have gained significant share and the standalone companies have lost heavily. The regional players gained the lion's share at 14.2 percent during the period, followed by the large companies gaining 9.3 percent at the cost of stand alone companies which lost 23.5 percent capacity share. Cement being a high volume and low value commodity; transporting it beyond a distance makes it unremunerative, making it regional in nature. (Table-1)

The cement industry has witnessed significant mergers and acquisitions leading to reorganization of capacities. Multinational cement companies have also initiated the acquisition process in the Indian cement market. Swiss cement major Holcim picked up a strategic stake in Ambuja Cements Ltd (ACL). Earlier, Holcim had entered into a strategic alliance with ACL, and acquired a controlling stake in Ambuja Cement India. Through this

2 the first cement factory was set up in India in 1914]

3 The capacity includes Mini cement plant and white cement. Source: CMA.

Table 1: Size-wise Classification and their Trends in the Cement Industry

Classification	Number of companies			% share of total capacity		
	1997-98	2002-03	2008-09	1997-98	2002-03	2008-09
Large Companies	4	4	2	32.5	45.2	41.8
Regional companies	12	12	14	23.2	31.2	37.4
Standalone Companies	41	34	35	44.3	23.6	20.8
Total	57	50	51	100	100	100

Source: Research report on cement by CRISIL 2009

holding company, Holcim acquired a substantial stake in ACC. Lafarge, the French cement major, had acquired the cement plants of Raymond and Tisco. Italy based Italcementi has acquired a stake in Zuari Industries. Heidelberg Cement of Germany has entered into an equal joint-venture agreement with Indo-Rama Cement.

Consolidation of capacities has seen the emergence of two major groups in the Indian cement industry, the Holcim-ACC-Ambuja Cements combine and the Aditya Birla group through Grasim Industries and UltraTech Cement. We study the pattern of concentration in detail in the next section.

3. Changing pattern of Market Concentration in Cement Industry

In this section, we studied the impact of liberalization on growth and change in concentration of the cement industry. Concentration is an important aspect of the structure of any industry. Evidence suggests that an industry's conduct and performance is deeply influenced by the degree of concentration.

Hall and Tideman (1967) listed six properties or axioms for concentration measures. Curry and George (1983) mention that the oldest and most commonly used of all indices is the K- firm concentration ratio, defined as the cumulative share of the Kth firm. Using S_i to denote the share of the i th firm, it may be defined as

$$CRK = \sum_{i=1}^K S_i$$

The index is simply one point on the cumulative concentration curve and so it may neglect important information. Recognizing this weakness, Miller (1967)

introduced the concept of the marginal concentration ratio - the combined market shares of the fifth to eighth largest firms-which he included alongside four CR measures as an important element of market structure. However, Collins and Preston (1969) argued that little is gained by doing this because the two concentration measures are closely related. Support for the concentration ratio can be found in the work of Saving (1970), who shows that if K dominant firms collude to fix a price for the remaining firms, the value of the Learner index is directly related to their combined market share. Another popular index the Herfindahl or H index, defined as the sum of the squared values of all the firms' shares satisfies all of Hall - Tideman axioms. Theoretical support for H as an index of market concentration is provided by Cowling and Waterson (1976).

For our purpose we have chosen to focus on two alternative measures: four firm concentration ratio and Herfindahl index to get a comprehensive picture of the changing pattern of concentration in the cement industry.

3.1 Four firm Concentration Ratio

The four-firm concentration ratio is defined as the percent of total industry production (or sales) that is accounted for by the four large firms. We report the name of the top four firms with their market share in the beginning and terminal year of our study in table 2. It can be seen that not only has the four-firm concentration increased, the firms belonging to the top four firms has also changed from 1989 to 2006. Barring ACC which retained its position, we had new entrants like Ambuja Cements Ltd (ACL), Grasim and Ultratech in the top four firms in 2006. (Table-2)

We report the movement of four firm concentration ratio in Table A.1, and figure 1 presents the results graphically. (Figure 1)

The concentration ratio initially declined over the period 1989 to 1997 to 33.8 percent, signifying reduced concentration. It then increased steadily and went up to 45 percent by 2003. The concentration ratio again declined in 2004, 2005 and 2006 to reach 41.4 percent by 2006 signifying increased competition. However, if we take ACL-ACC and Grasim - Ultratech strategic merger and combine them as one entity, then the 4 firm concentration ratio goes up to 51.7 percent. This pattern can be explained in the following way:

The extent of concentration in the industry seems to have increased over the years. It appears that with decontrol the cement industry became more profitable and to meet the latent demand, existing large companies went for expansion. Unfortunately, fresh investments were not forthcoming for the only dominant public sector company CCI and it lost market share rapidly. ACC, the top company also lost market share with the onslaught of competition. The entry of three new players who were not in the top four till 1993 viz., Ambuja Cements, Grasim Industries and L&T which started expanding its capacities aggressively led to a surge in the four firm ratio.

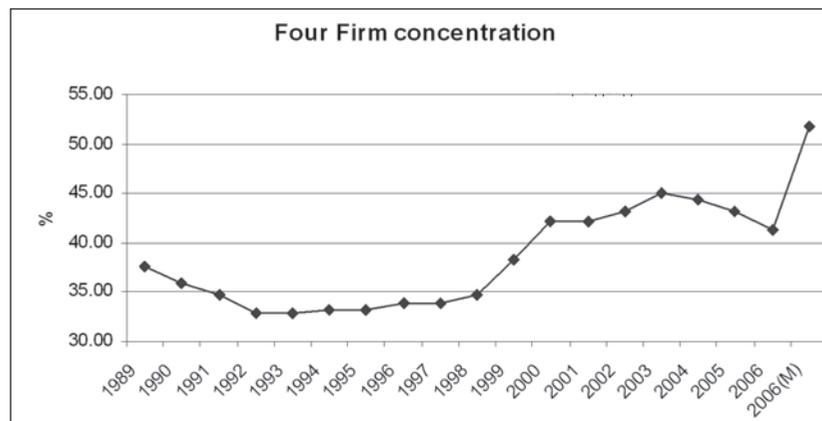
Table 2: Top Four firm in the Cement Industry

Company	Mkt Share 1989	Company	Mkt Share 2006	Company	Mkt Share
2006(M)					
A.C.C.	17.7	A.C.C.	12.7	A.C.C +ACL	22.6
J.K. Group	7.7	ACL	9.9	Grasim + Ultratech	18.7
C.C.I	6.5	Grasim	9.8	India Cements	5.8
Birla Corp	5.7	Ultratech	9.0	Century Textiles	4.6
Total	37.6	Total	41.4	Total	51.7

[Note: In 2005-06 (M) - we have modified the data to take into account the strategic merger of capacities of some cement companies like ACC -ACL and Grasim-Ultratech]

Source: Constructed using CMA data

Figure 1: Movement of Four firm Concentration Ratio



[Note : In 2005-06 (M) - we have modified the data to take into account the strategic merger of capacities of some cement companies like ACC -ACL and Grasim-Ultratech]

Source: Constructed using CMA data

3.2. Herfindahl Index

The four firm concentration ratio measured above is commonly used as a summary index of fewness. But concentration ratios contain information only about the market shares of the largest few firms in an industry. They therefore discard a considerable amount of information about the relative sizes of the smaller firms in the market and provide only a limited picture of the size distribution of firms in the market.

For this reason, an alternative measure of concentration, the Herfindahl index is studied here. It has the merit of combining information about the market shares of all firms in the market, not just the largest four.

If there are n firms and Si is the market share of firm i, the Herfindahl index H is measured as follows:

$$H = \sum_{i=1}^n S_i^2$$

We have reported the calculations of Herfindahl index in table A.2, and presented it graphically in figure 2. It is a u-shaped curve. The index fell in the initial years from 1989 to 1998 and then started rising. There appears to have a slight declining trend from 2001 but to get a proper perspective, if we rearrange and modify the data to combine ACC with ACL and Grasim with Ultratech then the H Index has actually increased

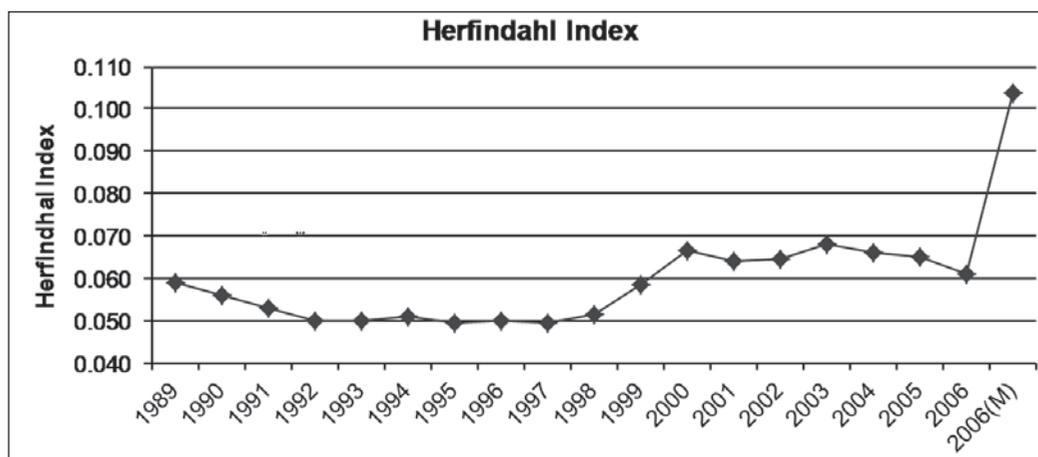
significantly as seen in the figure for 2006(M). (Figure 2)

Alternatively, the inverse of the Herfindahl index (1/H) is presented in table A.3 and graphically presented in figure 3. We know that 1/N equal sized firms in an industry produce an H Index of N, implying in this case that the cement industry is behaving as if 16 equal sized firms are dominating in 1989. This index went up to 20 in 1997 before declining to 14.7 by 2003. It started rising again and reached 16.4 by 2006. (Figure 3)

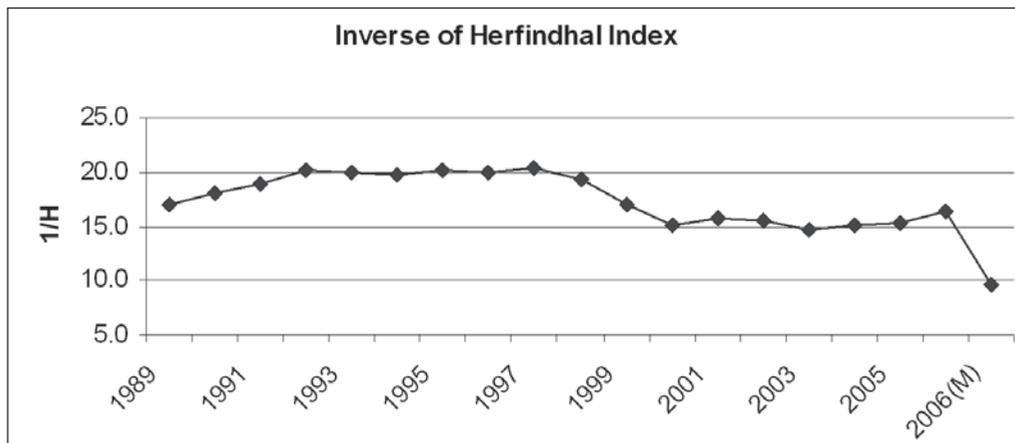
However, if we rearrange and modify the data to take (ACC and ACL) and (Grasim and L&T) as one group then the 1/H Index decreases to 9.6 in 2006. It indicates that though the cement industry is fragmented with a large number of firms operating, in effect the concentration has changed from more than 16 firms earlier dominating the industry in 1989, to nearly 10 equivalent firms in 2006.

So Herfindahl index essentially follows the same pattern as four firm and eight firm concentration index. Large capital and extensive distribution network requirement, long gestation period and cyclical nature makes the cement industry unattractive. Though availability of technology is not difficult, the difficulty is in sourcing key raw materials like limestone; coal linkage deters new entrants and provides high entry barriers in the

Figure 2: Movement of Herfindahl Index



Source: Constructed using CMA data

Figure 3: Movement of Inverse of Herfindahl Index

Source: Constructed using CMA data

cement industry. One of the main reasons for the rise in concentration is the focus of the larger and the more efficient units to consolidate their operations by restructuring their business and taking over relatively weaker units. The entry of foreign multinationals who find the Indian market large and attractive and their penchant for consolidation and large scale operations is another significant reason for the rise of concentration. We expect this trend to continue.

4. Quartile-wise Analysis of Market Share

In this Section, we break the dataset of firms into quartiles. The Herfindahl index in the previous section gives an overall picture of the entire group of firms. To gain an insight into whether the patterns emerging from the analysis are same or different in each of the quartiles, we carry out a market share analysis for each of the quartiles separately.

We take the subset of companies, present both at the initial period of our study (1989) as well as at the terminal period (2006). This set consists of 32 companies. We divide the companies into four quartiles according to their average market shares during this period. We then calculate the total market share of the companies belonging to each quartile for both the periods 1989 and 2006 to study the nature of changes of the market share of each quartile during the period under consideration.

The result of our analysis is presented in Table A.4. It

is found that the companies in the top 2 quartiles (i.e., companies having market shares more than the 2nd quartile) have gained significant market share in aggregate, whereas the companies in the lower two quartiles have lost market share. Our analysis shows that top most quartile gained maximum market share at 7.2 percent, whereas the second highest quartile gained 3.2 percent.

To take a closer look at the changes in aggregate market share we break up the total period i.e. from 1989 to 2006 from the median year 1997 into two intermediate periods, i.e. 1989 to 1997 and 1997 to 2006. Again we divided the total number of companies into four quartiles according to their market shares at each point of time (1989, 1997 and 2006). Then we calculated the aggregate market share of firms in each quartile. Further we checked how this aggregate market share of each quartile has changed during two time periods, which is from 1989 to 1997 and between 1997- 2006. We found that for the period 1989-97, the top quartile gained marginal share of 0.14 percent and the second largest quartile gained 0.5 percent. But the gain became much more pronounced during the 1997-2006 period. The top most quartile gained 7.1 percent and the second largest quartile gained 2.7 percent.

It appears that smaller firms were losing market shares whereas the larger ones were gaining from right after the liberalization of economy. Another interesting

feature that we found was that the gain was relatively marginal during the period 1989 -1997 at less than 0.5 percent for the top two quartiles. But the gain was more pronounced during the period 1997 -2006. It can be concluded that there has been redistribution of market shares in favour of larger companies, leading to higher concentration.

5. Ranking Test

In this section we studied the changes in the rankings of the cement companies from 1989 to 2006 based on the market share, and analyzed their significance. During this period many new companies entered the cement sector by putting up new plants, some of which got amalgamated with larger companies later. Some large multinational companies also entered India during this period. For the sake of consistency, only those companies, which existed during 1989 and were present throughout the entire period up to 2006 has been considered. In this study we have thirty two such companies, and for our analysis, the ranks of only these companies were considered.

We found that the relative market share of many players in the cement industry has changed significantly over the years. The large players have resorted to a combination of green field capacities as well as takeover of existing capacities for growth. It appears that there have been considerable changes in the rankings. To analyze how deep and significant are these changes, we take up rank concordance and correlation tests.

5.1 Index of Rank Concordance

Boyle and McCarthy (1997) had proposed a measure for assessing the inter-temporal mobility of countries in terms of the ranking of countries by income levels. The measure seeks to capture the change in the rankings as reflected by Kendall's index of rank concordance. They proposed a multi-annual version (RC_t) and a binary version ($RCat$). We intend to use that concept for studying the change in inter-temporal mobility of ranks of the cement companies.

The multi-annual version may be defined as:

$$RC_t = \frac{\text{Variance} \sum_{t=0}^T AR(Y)_{it}}{\text{Variance}\{(T+1) * AR(Y)_{i0}\}}$$

Where $AR(Y)_{it}$ is the actual rank of the firm i 's market share in year t ; $AR(Y)_{i0}$ is the actual rank of firm i 's market share in the initial year 0; $(T+1)$ is the number of years for which data were used in computing the index.

The binary measure is obtained from the ranks in year's t and 0 and is defined as:

$$RC_t = \frac{\text{Variance}\{AR(Y)_{it} + AR(Y)_{i0}\}}{\text{Variance}\{2 * AR(Y)_{i0}\}}$$

The multi-period measure can be calculated for every value of t i.e., $T=0, 1, \dots$. The numerator measures the inter-firm variation of the sum of actual rankings of the firms over the period from 0 to T . The denominator is obtained by multiplying the base period ranking by $(T+1)$ and then calculating the variance across the firms.

The multi-annual measure, extending over the whole period, contains all possible pairs of years for which the binary measure could be computed. The value of this rank concordance will lie between zero and unity. A value of unity for this measure will imply no mobility and closer the value of the measure to zero will imply greater is the extent of mobility within the distribution.

The results of the binary measure and multi-annual measure are reported in Table 3. Though both the values are very high, there is a downward trend in both the series, indicating some mobility of ranks within the firms. (Table-3)

Since the changes in market share has been taking place more in the top two quartiles, we particularly look at the inter - temporal movement of the firms measured by $RCat$ in the top two quartiles.

The results reported in Table 4 indicate that there is much more sharp movement in the measure of $RCat$ for the firms in the top two quartiles than in the total set of firms. (Table-4)

6. Testing for Structural Stability

In the present section we concentrate on how the market share has behaved for each individual company during the period under study and test for structural breaks. In order to study structural breaks we carry out the Chow test.

It was seen in the earlier section on rank correlation test that there has been considerable churning among the companies, when ranked according to their market share. The Chow Test confirms that there indeed has been a structural change, for many companies. The summary of the Chow test results are reported in Table A.5.

In the earlier analysis we have found that ACC retained

Table 3 : Inter-temporal Movement for the Full Set of Firms

Year	RCt	RCat	Year	RCt	RCat
1989	1.000	1.000	1998	0.942	0.936
1990	0.987	0.987	1999	0.933	0.910
1991	0.978	0.978	2000	0.922	0.898
1992	0.972	0.970	2001	0.917	0.906
1993	0.965	0.961	2002	0.895	0.856
1994	0.959	0.953	2003	0.891	0.891
1995	0.956	0.950	2004	0.892	0.912
1996	0.952	0.953	2005	0.890	0.892
1997	0.946	0.946	2006	0.890	0.896

the top slot and led the market share table, though it lost market share during this period. ACC's market share came down from 17.7 percent in 1989 to 12.7 percent by 2006. However, we find no structural breaks in the Chow Test for ACC. This could be because it had lost market share gradually. Grasim is a company which gained significant market share from under 3 percent in 1989 to more than 6 percent by 1997 and going up to 11 percent by 2003 before losing some share and being at 9.8 percent by 2006. Grasim moved up from eighth position in 1989 to fourth position by 1997 and ultimately to third position by 2006. The Chow test gives break for Grasim in 1999. There were breaks in several years for the Ultratech which has the second slot as per average market share. Ultratech increased its market share from 4.3 percent in 1989 to 8 percent by 1997. It further increased its market share to 11.6 percent by 2000 before slipping to 9 percent by 2006. Ultratech's rank had moved up from the 6th position to 2nd position in 1997 and then again slipped to fourth position by 2006. We find the Chow test gives breaks from 1996-1999 for Ultratech. Grasim and Ultratech are two companies, who aggressively expanded their production capacities and increased their market shares to move up the rank tables significantly.

Ambuja cements and India cements were two companies which did not even figure in the top eight companies in 1989, but became leading cement companies by 2006. Ambuja Cements had a market share of less than 2

Table 4: Inter-temporal Movement of RC_{at} for the Firms in the Top Quartiles

Year	Top Quartile	2nd largest Quartile	Year	Top Quartile	2nd largest Quartile
1989	1.00	1.00	1998	0.63	0.79
1990	1.00	0.96	1999	0.57	0.76
1991	1.00	0.98	2000	0.50	0.79
1992	0.98	0.93	2001	0.52	0.79
1993	0.95	0.92	2002	0.58	0.52
1994	0.86	0.81	2003	0.50	0.73
1995	0.82	0.83	2004	0.50	0.79
1996	0.73	0.79	2005	0.50	0.73
1997	0.63	0.79	2006	0.50	0.73

percent in 1989 and increased its market share to 5.6 percent by 1997 and further to nearly 10 percent to occupy the second position in 2006. Chow test gives structural breaks in the year 1995, 1996 and 1997 for Ambuja Cements. India Cements had only 2.5 percent market share in 1989 but by 1997 it had captured a market share of 4 percent and by 2006 it had nearly 6 percent market share and occupied the fifth position. The Chow Test gives structural breaks from 1997-2001.

JK group has moved down from second position in 1989 to eighth position by 2006. It was initially able to hold its position as it moved to third position by 1997 but slid sharply thereafter. The Chow test gives break for JK group in 1998, 1999 and 2000.

In the companies between the 2nd and 3rd quartile there was a significant break for CCI. CCI a public sector company gives multiple breaks in the Chow test from 1996 to 2002. Perhaps this was, as CCI held a commanding position during the pre decontrol period, but continuously lost market share, as it could not withstand the onslaught of competition from the new entrants after the period of decontrol. Other companies like Jaypee and Shree cement which recorded breaks had increased their market share significantly. Jaypee recorded break in 1995 and Zuari recorded breaks in 1997, 1998 and 1999. In the last group i.e., companies in the first quartile, companies like Kalyanpur, Malabar, KCP, Panyam, Shriram, Kanoria, Mawluh and J&K, remained in the fringes throughout the period with less than 1 percent share. All these companies except Panyam recorded no structural break.

An interesting observation that most of the companies recorded structural breaks during the 1996-1999 period. This coincides with the year 1998, when the direction of the all the concentration ratio i.e., four firm, eight firm and Herfindahl index changed. We may in conclusion that this was the period when the cement industry experienced a structural change.

7. Conclusion

This paper gives an insight into how the process of deregulation has impacted the structure of the cement industry, which has faced regulation for a large periods of time. The four-firm concentration ratio which stood

at 37.6 percent in 1989, declined to 33.8 percent by 1997 signifying reduced concentration. It then started rising steadily and crossed the 40 percent landmark first time in the year 2000 and went on to reach 45 percent by 2003. There has been a slight reduction thereafter till 2006 but if we take Grasim-Ultratech and Ambuja-ACC as one entity, then the concentration ratio goes up to 51.7 percent in 2006 signifying increased concentration. The Herfindahl index also nicely captures this effect. We can conclude that immediately after decontrol, increase in competitiveness lead to reduced concentration for few years. However, this trend was reversed mainly due to expansion and acquisition of capacities by the larger Indian firms to consolidate their position and entry of multinationals. Regional and smaller players have had to sell out to these larger Indian players and multinationals leading to increased concentration.

There has been a considerable change in the market shares and ranks of the companies during this period. An analysis reveals that the top most two quartiles made significant gains in market share and the companies below the second quartile lost market share during this period. In other words, redistribution of market shares has taken place in favour of larger companies.

We have used Boyle and McCarthy's (1997) concept for assessing the inter-temporal mobility of firms in terms of the ranking of firms by market shares. The measure seeks to capture the change in the rankings as reflected by Kendall's index of rank concordance. The results of the binary measure and multi-annual measure shows that in both the values there is a downward trend in both the series, indicating some mobility of ranks within the firms.

The Chow Test confirms that there indeed has been a structural break, for many companies. The companies which rose to leadership position and gained significant market shares were Ambuja Cements, India Cements, Ultratech, and Grasim. The other companies which gained significant market shares were Jaypee, Shree Cement, Zuari etc. All these companies recorded structural breaks. ACC maintained its leadership

position and experienced no structural breaks. However, CCI, the dominant public sector cement company in 1989 lost its preeminent position and lost significant market share and had structural breaks. In the lowest quartile, companies remained in the fringes throughout the period with less than 1 percent share with most of the companies not recording any structural breaks.

An interesting observation that most of the companies recorded structural breaks during the 1996-1999 period which coincides with the year 1998, when the direction of the concentration ratios i.e., four firm and Herfindahl index changed. We may in conclusion that this was the period when the cement industry experienced a structural change. The cement industry has an increasing market concentration over period of time and the redistribution is happening in favour of the largest firms in the industry.

The present study is primarily exploratory rather than normative. However, some policy implications follow: The concentration of four firms is more than 50 percent. Two dominant groups viz., the Holcim group and the Aditya Birla group have emerged in the cement industry which now account for more than 40 percent market share. It indicates that the other companies in the industry are much smaller. Moreover, there is a rising trend in the market share of the larger companies both through organic growth and acquisitions. It is to be seen that in the cement industry also the spirit of the Competition Act, 2002 (as amended by the Competition (Amendment) Act, 2007), is ensured so that the larger companies do not get into anti-competitive agreements or abuse their dominant position which can cause an appreciable adverse effect on competition within India.

Table A.1: Movement of Four firm Concentration Ratio

Year	Four firm concentration ratio	Year	Four firm concentration ratio
1989	37.61	1999	38.30
1990	35.97	2000	42.09
1991	34.72	2001	42.18
1992	32.95	2002	43.23
1993	32.79	2003	45.01
1994	33.13	2004	44.33
1995	33.13	2005	43.20
1996	33.84	2006	41.35
1997	33.81	2006(M)	51.74
1998	34.80		

[Note : In 2005-06 (M) - we have modified the data to take into account the strategic merger of capacities of some cement companies like ACC -ACL and Grasim-Ultratech]

Source: Calculated using CMA data

Table A.2 - Movement of Herfindahl Index

Year	Herfindahl Index	Year	Herfindahl Index
1989	0.059	1999	0.059
1990	0.056	2000	0.066
1991	0.053	2001	0.064
1992	0.050	2002	0.064
1993	0.050	2003	0.068
1994	0.051	2004	0.066
1995	0.049	2005	0.065
1996	0.050	2006	0.061
1997	0.049	2006(M)	0.104
1998	0.052		

[Note : In 2005-06 (M) - we have modified the data to take into account the strategic merger of capacities of some cement companies like ACC -ACL and Grasim-Ultratech]

Source : Calculated using CMA data

Table A.3
Movement of Inverse of Herfindahl Index

Year	1/ H	Year	1/ H	Year	1/ H
1989	16.9	1996	20.0	2003	14.7
1990	18.0	1997	20.3	2004	15.1
1991	19.0	1998	19.4	2005	15.4
1992	20.1	1999	17.1	2006	16.4
1993	20.0	2000	15.1	2006(M)	9.6
1994	19.7	2001	15.7		
1995	20.2	2002	15.5		

[Note : In 2005-06 (M) - we have modified the data to take into account the strategic merger of capacities of some cement companies like ACC -ACL and Grasim-Ultratech]

Source : Calculated using CMA data

Table A.4: Quartile wise Analysis of Market Share

Mkt share (1989-2006)	Mkt share '89	Mkt Share '06	Gain / loss
Top (Mkt. Share > 3rd quartile)	53.11	60.32	7.21
Between 2nd and 3rd quartile)	16.7	19.89	3.19
Between 1st and 2nd quartile)	8.76	6.94	-1.82
< 1st quartile)	3.73	1.64	-2.09
Mkt sh (1989-1997)	Mkt share '89	Mkt share '97	Gain / loss
		1997	
Top (Mkt. Share > 3rd quartile)	53.11	53.25	0.14
Between 2nd and 3rd quartile)	16.7	17.19	0.49
Between 1st and 2nd quartile)	8.76	8.62	-0.14
< 1st quartile)	3.73	3.61	-0.12
Mkt sh (1997-2006)	Mkt share '97	Mkt share '06	Gain / loss
Top (Mkt. Share > 3rd quartile)	53.25	60.32	7.07
Between 2nd and 3rd quartile)	17.19	19.89	2.7
Between 1st and 2nd quartile)	8.62	6.94	-1.68
< 1st quartile)	3.61	1.64	-1.97

Source : Calculated using CMA data

Table A.5: Structural Breaks in Chow Test Results

Sl.No.	Name	Structural Breaks	Sl.No.	Name	Structural Breaks
1	ACC	None	17	Kesoram Industries	None
2	Ambuja Cement Ltd.	1995			
1996					
1997	18	Madras Cement	None		
3	Andhra Cement	1998	19	Malabar Cement	None
4	Birla Corp. Ltd.	1996	20	Mangalam Cement	None
5	Cement Corp. India	1996 1997 1998 1999 2000 2001 2002	21	Mawluh Cherra	None
6	Century Textiles	None	22	Mysore Cement	1995 1996
7	Chettinad Cement	1999 2000	23	OCL	1999
8	Dalmia Cement	None	24	Orient Paper	None
9	Grasim Industries	1999	25	Panyam Cement	1997 1998
10	India Cements	1997 1998 1999	26	Rain Industries	None
11	J K Group	1998 1999	27	Saurashtra Cement	None
12	Jaypee	1995	28	Shriram Cement	None
13	J & K	None	29	Shree Cement	1998
14	Kalyanpur Cement	None	30	TNCC	None
15	Kanoria Group	None	31	Ultratech Cement	1996 1997 1998 1999
16	KCP	None	32	Zuari Cement	1997 1998 1999

Source : Calculated using CMA data

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Jayanta Nath Mukhopadhyay is a PGDM from IIM Calcutta and did his PhD from Jadavpur University. He is presently the Dean and Professor of Finance at Globsyn Business School. He has been a visiting faculty at IIM Calcutta and IIM Rohtak. His research papers have been published in leading journals.

Malabika Roy is an Associate Professor in the Department of Economics at Jadavpur University. She did her PhD from ISI Kolkata. Her articles have been published in several leading national and international journals.

Ajitava Raychaudhuri is Professor of Economics at Jadavpur University. He was ranked first both in the graduation and post graduation examinations before completing his PhD in Economics from American University, USA. He was also a Fulbright Fellow. He has written several books and his articles has been published in several leading national and international journals.

e-HRM Systems Implementation: A Conceptual Framework

Somendra Pant, Abha Chatterjee and Deepak Jaroliya

Abstract

Information and Communication Technologies (ICT) enable innovative ways of carrying on routine organizational tasks via the power of virtual work environment. Piggy-backing on the success of e-commerce systems, organizations are increasingly making use of Electronic Human Resource Management (e-HRM) systems. These systems offer organizations the promise of huge performance improvement as well as of overhauling the entire Human Resource Management (HRM) function itself. This latter possibility is expected to offer competitive advantage to organizations. However, it is not known (a) what is the benefit of e-HRM systems implementation (b) what contextual factors moderate the relationship between e-HRM systems implementation and their benefits. In this paper we offer a conceptual framework of e-HRM systems implementation.

Keywords: Information and Communication Technologies (ICT), Human Resource Management (HRM), e-HRM systems, Information Systems, HRM Strategy, Organizational Culture, Organizational Communication Patterns.

1. Introduction

In today's organizations, thanks to Information and Communication Technologies (ICT), Human Resource Management (HRM) is undergoing a major change. One agent of change identified by researchers is the use of the Internet and the Web technologies to augment and enhance HRM (Gueutal and Stone, 2005; Legnick-Hall et al., 2003; Lee, 2005). Such use of the Internet and the Web technologies is popularly referred to as Electronic HRM (or e-HRM). This term gained currency along with its more popular cousin, e-commerce. In the 90's organizations started using the Internet and the Web technologies for a myriad of human resource (HRM) activities such as managing payrolls, maintaining

employee directories, and for communicating with the employees (Gueutal and Stone, 2005). As Web technologies matured and organizations enthusiastically adopted them, more and more of the HRM functions got Web-enabled. e-HRM essentially transfers HRM functions to employees and managers. They access these functions over a web interface, typically over a corporate intranet. e-HRM can range widely in scope; at the low end it can be a simple web-based system to access Human Resource (HR) related documents. At the high end e-HRM is a fully integrated, organization-wide electronic network of HRM related data, information, services, databases, tools, applications, and transactions that are generally accessible at any time by the employees, managers, and HRM professionals (Hussein et al., 2007). Advanced e-HRM systems typically include Enterprise Resource Planning (ERP) systems, HRM service centers, Interactive Voice Response (IVR), manager and employee portals and web applications.

e-HRM systems have their origins in payroll systems which were first used by the US firms in the 1950's, around the same time that computers were introduced in businesses. Companies used these systems to efficiently process huge amounts of data and also to comply with tax and wage regulations. At the end of the 20th century, other legislations like Affirmative Action, Equal Employment Opportunity, the Occupational Safety and Health Act, and the Employee Retirement Income Securities Act led to a demand on the US firms to collect, store, manage, and report unprecedented amount of personnel data. In response to such demands, the first generation of information systems geared toward human resources were developed (Fletcher, 2005; Ruel and Bondarouk, 2004).

In the 1990's, competition amongst firms increased substantially as customers became more demanding and Internet technologies reduced entry barriers. Organizations started to decentralize functions while

trying to maintain centralized control through standardized processes and information. Dow Corning, for example, for a long time maintained a decentralized organizational structure, with local information systems. Reporting structure for employees was also particular to a region, a division, or a country and this resulted in a lack of insight, coordination, and best practices. Dow Corning streamlined its HRM processes through a global installation of a Human Resources Information Systems (HRIS). This system reduced global organization barriers, decreased redundant activities, as well as decreased cycle time for key processes. Generally, as the workforce became more educated, diversified, and global, organizations needed better insight into personal data as well as tools that would make employees feel "empowered" and connected to the corporation. e-HRM provided one such tool, and became almost mandatory for a firm like India-Tech (discussed later in the case study section). Furthermore, employee talent became a critical competitive but scarce resource and firms needed a tool to tap in to global talent pools (Fletcher, 2005; Lee, 2005). Gartner Consulting, for example, studied the South African brewing company SAB Ltd. and found that HRM was required to make hiring decisions based upon outdated information that resided in multiple information systems. Later, SAB Ltd. consolidated its HRIS and now they have real-time data that enables them to make right hiring decisions (Fletcher, 2005). In another ROI study conducted by the Gartner Consulting, a major North American utilities company TransAlta Corporation created value through its HRIS by automating approximately 2000 employee data transactions yearly, which in turn reduced the amount of time that employees spent on transactional tasks and were able to focus on activities that positively impacted its business (Fletcher, 2005).

The use of technology within HRM has increased a lot over the recent years, with 77 percent of organizations using some form of HRIS (De Alwis, 2010). Although a lot of the use of the technology in HRM is to automate routine tasks, many organizations are using the technology to redefine their HRM function and delivery. It is such an impact of the Web technologies on HRM functions that it is being dubbed as "transformational"

(Legnick-Hall et al., 2003). While e-HRM systems indeed offer wide-ranging and unprecedented benefits to organizations, they also entail huge costs and risks (Bell et al., 2006; Weekes, 2006; Anonymous, 2006). Such costs emanate not only from the systems costs but also from those associated with changing the organizational processes, employee training, and the time of the HR and the top management in implementing, adopting, and promoting these systems. Risks are inherent in employees not using the system, as well as in employee alienation and resistance to change. Thus the purpose of this paper is to: (a) study the relationship between e-HRM systems implementations in organizations and their benefits and (b) identify the factors that moderate the above relationship. We have drawn our insights from many sources, viz., published articles, brainstorming sessions, interviews with HRM practitioners, and a study of e-HRM implementation at one big information technology firm in India (referred to as India-Tech here). The remainder of the paper is organized as follows: In the following section we discuss the research method used in this research. In the next section, we discuss our study at India-Tech. This is followed by the conceptual model that we have developed. We conclude the paper with a discussion of implications of our work for practice and research.

2. Research Method

This research is qualitative in nature. Qualitative methods are well suited to research an area about which little is known (Stern, 1980). As mentioned earlier, we conducted a 90 minute brainstorming session with twenty one HRM Managers from a myriad of industries - IT, hospitality, manufacturing, finance, retail, and defense. The initial session provided us with some thoughts to work on. Based upon the initial brainstorming session and our theoretical understanding of the field, we conducted a number of semi-structured interviews with HRM Managers. Relying on such "theories-in-use" of thoughtful practitioners for theory building is advocated as an appropriate and desirable method for studying a phenomenon that is new, and thereby, lacking in systematic and rigorous research (Cooper, 1995). Our initial working model (Figure 1)

resulted. A number of working propositions (P1 through P8) were a result of the brainstorming session, a few interviews, and our logical reasoning.

3. e-HRM Systems at India-Tech

At the heart of our conceptual model is a study that we conducted at a large Indian IT firm, called here India-Tech, to conceal its identity. India-Tech is one of the largest Indian IT firms. Currently the firm has over 60,000 employees, has offices in the five continents, and it earns a revenue of over 1 Billion USD. Growth of India-Tech has been spectacular - starting off as a small entrepreneurial outlet to cater to the IT needs of a few customers in the US and the UK, the firm grew from a mere 1000 employees in the early 1990's to its present size. Initially the firm provided trained IT personnel to its few customers to work at their site. Now it has multiple delivery models - it provides personnel to work at the customer sites as well as it brings their IT problems to its centers to provide what are known as off-site solutions. The growth story at India-Tech continues unabated and it is expected to have 100,000 employees on its rolls in the next few years. India-Tech enjoys a high reputation in the industry; it earned the highest level of professional competence, the Capability Maturity Model Level 5 and has also won many awards for excellence in leadership and employee training. The firm, despite its current size, has maintained its entrepreneurial DNA and has evolved a matching organizational structure.

The main challenge for India-Tech was to manage its HR needs in the face of its rapid growth - i.e., how to recruit employees and subsequently manage them by way of training, performance appraisal, addressing their grievances while maintaining its homely, close-knit culture. When India-Tech implemented their e-HRM system in the late 1990s, they didn't have many models to emulate as they were one of the pioneers. Instead of relying on software packages like Peoplesoft, the firm decided to develop its own systems. The system was developed by the technology team of the firm and the HR worked closely with it. At the time of this study, the e-HRM system has been in place at India-Tech for nearly a decade. However, the system itself has evolved

and changed a great deal from its inception. Initially the system was used for more routine HR tasks like employee management and payroll. At the time of this study, the system was being used for wide ranging activities like performance appraisal, training, employee counseling, and for company-wide communication. We made our initial contact with India-Tech when the head of their HR visited one of the author's management institutes to make a presentation on their e-HRM systems. We discussed the system at India-Tech with him and expressed an interest in studying it in detail. The HR manager got his top management's approval for the study. We visited India-Tech's corporate headquarters and conducted a total of 12 interviews. We interviewed many managers at India-Tech. These were mostly middle and senior managers who were responsible for myriad HR activities like recruitment, training, compensation, and performance appraisal. Our sample came from HR as well as line of business managers of the managers in the HR department as well as managers in India-Tech 's line of business. Each interview lasted about one hour, was tape recorded, and transcribed. All three researchers independently went over the transcripts to highlight the emerging themes.

What emerged from this study was that India-Tech had a dire need to come up with a solution to help them cope with rapid growth, while at the same time keeping alive company culture of entrepreneurship and being a close-knit family. The company had two major options (a) either to decentralize their HR or (b) create a Web-enabled, virtual HR. Decentralization of HR would have been costly and would have resulted in fragmentary HR processes and practices. Furthermore, being an IT firm, India-tech felt confident that they will be able to design and successfully implement a virtual HR system and they opted for the second option. As one manager remarked:

"When we embraced e-HRM, we were not sure if it will succeed, but now, looking back, our strategy has paid off".

What he meant was that the e-HRM system has worked well, employees have embraced it enthusiastically, and they are using the system regularly. The following quote captures the motivation for adopting the system:

"Philosophy behind the e-HRM is that whoever is using e-support, we want them to be productive in what they are using it. We want to make sure that employees are concentrating on core work and not on contextual work like HR. If there is any kind of contextual work is there then e-support is there to help them out."

One manager who had concerns and reservations in the beginning told us:

"I was not sure if I will maintain the same quality of contacts with my subordinates - but now, instead of sitting down with them across the table for performance appraisal, they fill out forms on the Web and we conduct review sessions via video conferencing and our employees are as satisfied as ever."

One HR Manager at India-Tech remarked:

"There is no resistance to e-HRM; instead employees love it. We do not force them to use it. However, there are apprehensions to begin with; but when they start using the system, their apprehensions go away."

Part of the reason for the success of this system, we were told, lies in the preference of the younger generation of employees toward technology enabled communications like blogs and social media (the average age of the employees at India-Tech is around 25 years). Another instance of the success of the e-HRM system that was mentioned to us was its role in enabling the Founder's Day celebrations at India-Tech. Every year the firm celebrates Founder's Day by arranging parties, picnics, games, and outings for its employees and their families. This has become a big tradition in the firm and employees look forward to two days of celebrations, which also serves as a strong team- and morale building event. In the past it was easy for the firm to coordinate its activities at a few cities in India. Now, they celebrate the Founder's Day virtually, where employees go on picnics etc. at their respective locations, and also maintain contacts with their colleagues at other locations via web technologies and the social media. For example, managers offered the following insights:

"India-Tech is fairly mature in terms of its policies and in term of its way of automation. Many tasks have been automated by our on-line performance management

system. The other tremendous thing is empowerment as now managers have the freedom to make their own decisions."

"Through e- HRM we have been able to provide access to 60,000 people through a centralized system and propagate common culture across the different location. It is helpful in ensuring that everybody understands the policies, frame work and processes in the same way, hence it establishes the common culture in the organization."

What we learnt from our study of India-Tech was that (a) India-Tech needed something more than an efficient HRIS - they needed a system that would enable their strategy of rapid growth (b) they needed a system that will be sophisticated enough to address their HR needs in an comprehensive manner and would integrate with their other systems. In other words, the complexity and the sophistication of their system were in line with the strategic thinking of the firm, and a low level plain vanilla system would not have served their purpose. As one manager described to us:

"e-HRM at India-Tech is a unique concept - rather than being just a web-based HRM system, it is a virtual shared services platform. If any service is needed, then one can enter it in the system and ask for that service rather than going to people and asking them for help."

What emerged during our discussions was that the e-HRM system at India-Tech affected the role of managers at the firm. For example, HR was heavily involved in choosing and designing a system that would effectively replace a decentralized HR. On the other hand, the line managers are required to shoulder some of the HR responsibilities. As one line manager remarked:

"Now I wear two hats - that of a project manager and that of HR as I am the first physical contact with the employees."

In other words, while HR became more tech-savvy, the tech-savvy line managers became more HR savvy and this has been a win-win situation for all. Finally, it was brought to our attention that this endeavor would not have succeeded without the support of the top management at India-Tech. The top management

communicated to the entire firm the strategic necessity of implementing a system like the one that they have, their support motivated the managers and employees, made funding available for the system, and preempted political issues. Another firm which didn't have these factors in place wouldn't have been able to successfully implement a system of such magnitude and complexity.

We discuss our conceptual model next.

4. The Conceptual Model

Since implementation of e-HRM systems is a new phenomenon, literature in this area is still emerging. We have based our study in available literature, and borrowed heavily from other disciplines like Information

Systems, Organizational Culture and Behavior, Organizational Communication, and of course, Human Resource Management. We conducted a program for HR professionals at our management institute. Twenty one HRM managers from the top Indian organizations attended this program. We used this opportunity to conduct a brainstorming session with HRM managers. The purpose of this session was to gain insights into the dynamics of e-HRM systems implementations. We followed up this group brainstorming session with detailed one-on-one discussions with many managers. Questions used in the brainstorming session are given in Table 1 below, which is followed by key findings, given in Table 2:

Table 1: e-HRM Systems Implementation - Brainstorming Questions

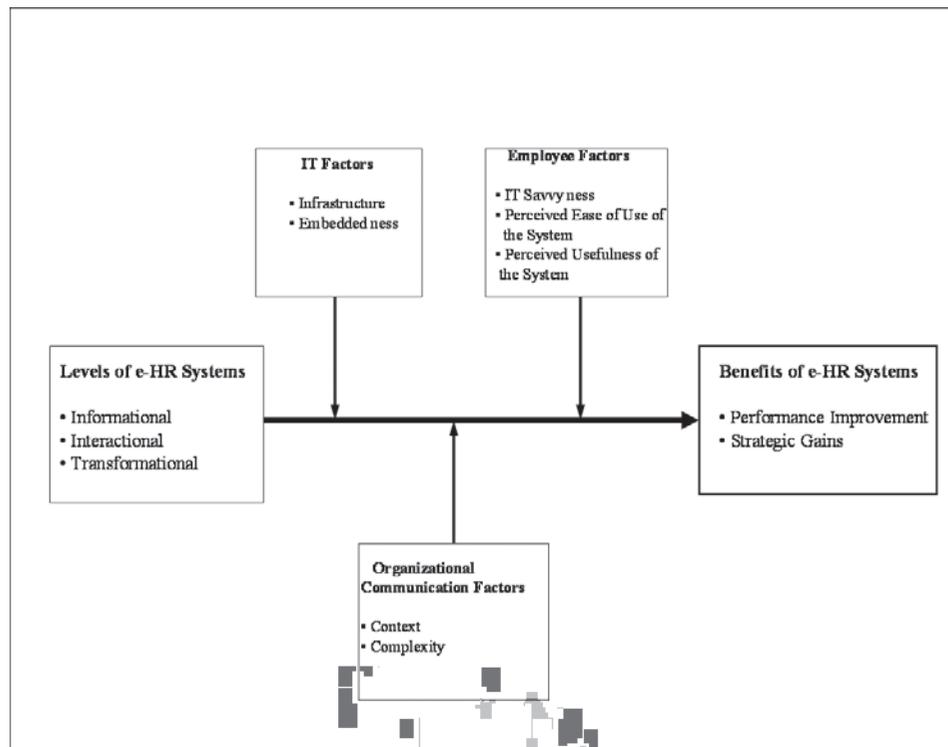
1. What kind of e-HRM systems does your company deploy?
2. How many people/locations are typically covered by your e-HRM system?
3. For what kind of activities do you deploy your e-HRM systems? What kind of applications do you have in your e-HRM suite? Who is the vendor? Is Computer Based Training/Learning a major initiative in your organization?
4. Is this a standalone system or is it integrated with other organizational systems?
5. For how long has your organization deployed an e-HRM system? Or, is your organization still planning on deploying one? What was (or is) the motivation for deploying one?
6. What in your view are the organizational, HR, and employee characteristics under the following three categories that make or mar e-HRM systems success?
7. What are the benefits and disadvantages of implementing e-HRM systems?
8. Which ones of the following three needs is your e-HRM system mainly serving - Operational, Tactical, Strategic?
9. Are employees enthusiastic about using such a system?
10. What employee characteristics - Management Rank, Education, Age, (or other) help or hinder system usage?
11. What are the technical issues (e.g., ease of use, bandwidth, IT support, self-help features, etc.) that help or hinder system usage?
12. Are there any effects (positive or negative) of e-HRM system on employee learning and the quality of communication?

Table 2: e-HRM Systems Implementation - Brainstorming Session Key Findings

- 1 "e-HRM system is used for salary slips, leave applications, mediclaim, as an appraisal system, for communicating organizational policies, leave balances, and even for conducting exit interviews. We also use it to conduct online exams for skill verification."
- 2 "e-HRM system is used for routine HR tasks, for sending greeting cards to employees, for making service manuals available to employees and for e-learning."
- 3 "We have a SAP e-HR portal that we are using for e-learning, making useful articles available to employees, for communicating the company's vision and values, for greeting employees on birthdays, for mediclaim, leave, e-recruitment, and for general communication."
- 4 "We are using our e-HRM system for internal job postings- across the globe and in India, as well as for tax deduction and for pay slips."
- 5 "We do not have on-line performance appraisal system - we are using our e-HRM system to mostly collect employee suggestions."
- 6 "Main thrust of the e-HRM system is to act as grievance addressing system."
- 7 "Top leader's support has to be there for the success of e-HRM systems, to be successful, these systems demand utmost transparency, geographic spread of companies will demand an e-HRM system, people have to be computer savvy for these systems to succeed."
- 8 "One major downside of these systems is the huge costs."
- 9 "e-HRM systems are helping us improve our bottom line."
- 10 "e-HRM systems are taking away human interactions are introducing a degree of insincerity in personal records, we haven't seen many improvements through the introduction of e-HRM, traditional HRM function is being replaced by e-HRM, which is not good."
- 11 "Employees have concerns about e-HRM systems and they prefer going to the HRM manager; there are too many applications to fill; employee's age is a factor in the systems acceptance; management of change has to be handled well to ensure success."
- 12 "After working for eight hours on a manufacturing shift, employees are not at all motivated to fill in particulars via an e-system."
- 13 "We have only two computers and employees have difficulty in accessing them; many employees are computer illiterate."
- 14 "Familiarity with technology is not an issue - employees use cell phones all the time and with some training they are able to use an e-HRM system."
- 15 "We are making strategic use of e-HRM systems, for example to carry out climate survey in the firm, for strategic manpower planning, to assess sales patterns, to keep track of attrition as well as for real time interactions with employees as well as to conduct exit interviews."
- 16 "e-HRM systems take away mundane tasks and there is a net upward, positive displacement of the HRM function."
- 17 "e-HRM systems have positive effect on growing our business."
- 18 "Real value of e-HRM systems comes from how the information generated by these systems is used in enhancing the HRM function">
- 19 "After implementation of e-HRM systems, time devoted to HRM is not reduced as the span of HRM is increased; additional time is spent on employee training."
- 20 "With the implementation of e-HRM systems, sense of hierarchy in organizations collapses, e-HRM systems help in decision making, in generating various alternatives, and in getting divergent views."

Based upon our case study, study of literature, and interactions with practitioners, we developed a model for e-HRM Systems Implementation (shown in Figure 1).

Figure 1: Levels of e-HRM Systems Implementation in Organizations and its Benefits



4.1 Levels of e-HRM Systems

Researchers have mentioned three levels of e-HRM system implementation (Legnick-Hall et al., 2003). The first level, called the "Informational", consists of using the Web technologies to publish HRM related material (e.g. directories, policies, and notices) on a corporate intranet. The second level, called "Interactional", consists of making employee related tasks like leave applications, management of benefits, and performance appraisal interactive via Web technologies. The third level, called the "Transformational", endeavors to overhaul the HRM function itself. At this level most of the routine HRM activities take place via smart suites of applications (like PeopleSoft/Oracle and SAP HRM) which are integrated with the rest of the Enterprise applications. This frees up the HRM managers and staff to devote to HRM development and strategies. For example, HRM managers get involved in facilitating computer based

learning for the employees. More importantly, the role of HRM gets transformed to that of storing, retrieving, and disseminating organizational knowledge (Legnick-Hall et al., 2003; Gueutal and Stone, 2005).

4.2 Benefits of e-HRM

Brynjolfsson via his seminal 1993 paper raised the issue of elusive gains from Information Systems (Brynjolfsson, 1993). Since then the Productivity Paradox of Information Systems has been "revisited" (Barua and Lee, 1997). Information Systems (IS) researchers now agree upon and conceptualize organizational gains from IS to occur at three distinct levels. The lowest of these gains automates organizational processes and thus makes them more efficient. Effectiveness gains accrue when organizations not only automate, but also redesign and integrate their business processes. At the highest level, organizations gain competitive advantage by

leveraging IS to create barriers to entry, switching costs, bringing out new products, and capturing new markets (Laudon and Laudon, 2012). In our conceptual model we combine the first two levels of IS-induced gains from e-HRM systems in a variable called "Performance Improvement". The other level of gains in our model is "Strategic Gains".

Higher levels of e-HRM systems implementation invariably enfold the lower levels. It stands to reason that higher the level of e-HRM systems implementation, more will be the benefits. This is so because through e-HRM systems, organizations are able to reduce the paper trail in HRM processes, reduce work-load on HRM employees as many of the tasks are performed by the employees themselves, and organizational competitiveness improves as HRM personnel are freed to devote time to HRM Development. Hence we propose:

P1: The higher the level of e-HRM systems implementation in an organization, the better will be the performance of its HRM and higher will be the strategic gains.

e-HRM systems implementation in organizations is likely to entail huge costs. These costs not come from the actual systems costs (software, hardware, networks), but also from the costs of training employees in the use of new systems, top and HRM managers' involvement in strategizing and implementing such systems, and costs of making employees accept a new system. Not all organizations are likely to derive benefits commensurate with the costs of implementing an e-HRM system. Our research findings suggest that many organizational and environmental factors must be present for organizations to derive benefits that will outweigh costs. As shown in Figure 1, we have identified three such contextual factors, which we discuss next.

4.3 Contextual Factor #1: IT Factors

One IT factor that we have identified as playing a critical role in the success of integration e-HRM systems is the firm's information technology infrastructure required for the creation of e-HRM systems. Presence of sophisticated computers, programs, networks, and the expertise to create good systems has been recognized

as an important factor in creating good information systems (Gunasekaran and Ngai, 2004, Sakaguchi et al, 2004). The other IT factor of interest is IT embeddedness. IT researchers have also applied Uzzi's (1996) concept of social embeddedness to the strategic use of Information Systems (Chatfield and Yetton, 2000). IT embeddedness in these researchers' conceptualization refers to the use of information systems toward realization of strategic goals (Chatfield and Yetton, 2000). Firms that are characterized by high IT embeddedness exploit the power of information systems toward quick dissemination of information and problem solving.

Existence of a well-developed information technology infrastructure (i.e., hardware, software, networks, and human expertise) is crucial for the creating e-HRM systems. The linkage between the quality of IT infrastructure and the success of sophisticated information systems has been established in the IS literature (Brancheau, 1996; Kweku, 1997; Karimi, et al., 1996).

If information systems are already highly embedded in an organization's processes, operations, and internal interactions, the benefits of higher levels of e-HRM systems are likely to be higher. In the case of highly embedded information systems, employees of a firm already engage in a great deal of interaction, exchange of sensitive information, and joint problem solving online (Chatfield and Yetton, 2000). These employees are more likely to understand each other's online communication, data, information, and knowledge exchange and can grasp quickly the context and the significance of the data, information, and knowledge exchange. Also, when information systems are highly embedded in a an organization, then employees can understand almost intuitively how and what it takes to automate various HRM processes in an organization and what type of adjustments are needed in their work methods, processes, and social systems to make the transition to e-HRM systems smooth and successful. On the other hand, if information systems are less embedded in the firm, employees may face a struggle in implementing highly sophisticated e-HRM systems to manage HRM activities.

Thus, when information systems are highly embedded in an organization, more sophisticated e-HRM systems are likely to lead to better and faster exchange of data, information, and knowledge and thus result in higher level of outcomes. In effect, under conditions of high embeddedness, the benefits of higher levels of e-HRM systems are expected to outweigh the costs of the creating such systems. Therefore,

P2: The more sophisticated the information infrastructure in an organization, the greater the net benefit of high levels of e-HRM systems in the organization.

P3: The more embedded the information technology in an organization, the greater the net benefit of high levels of e-HRM systems in the organization.

4.4 Contextual Factor #2: Employee Factors

Employee factors seem to have a marked effect on the success of e-HRM systems in organizations (Dessler, 2003). Many factors - education level of employees, their familiarity with information systems, and the nature of the industry - seem to play a pivotal role in the employee's readiness to use e-HRM systems. Some of the participants in our brainstorming session were from the IT industry. Employees in such firms readily took to the transition to e-HRM systems and were comfortable with making their information available on a corporate intranet as well as with receiving on-line feedback and support from the HRM personnel. One IT firm is even conducting part of its exit interviews on-line. Quite a few of the participants from the IT firms mentioned that because their employees are tech savvy, they have no problems with HRM being transitioned online.

The remaining two variables under the 'Employee Factor' category come from the Technology Acceptance Model (TAM) (Davis, 1989). According to this model, if users of an information system do not perceive it to be easy to use or useful, then they are not likely to use the system. TAM is a well-established model in IS research that looks at information systems from a user's perspective (Davis, 1989; Davis et al., 1989, Brown et al., 2002). If e-HRM systems are not perceived to be

easy to use by the employees of an organization, then they are not likely to adopt them fully. Likewise if these systems are not perceived to be useful by a firm's employees, they are not likely to use them. Thus perceptions of the employees about e-HRM systems implemented by an organization are likely to be an important factor in determining if the benefits of higher levels of e-HRM systems are expected to outweigh the costs of creating such systems. Therefore,

P4: Higher the IT savvyness of a firm's employees, the greater the net benefit of high levels of e-HRM systems in the organization.

P5: Higher the perceived usefulness of e-HRM systems in the minds of the employees, the greater the net benefit of high levels of e-HRM systems in the organization.

P6: Higher the perceived ease of use of e-HRM systems in the minds of the employees, the greater the net benefit of high levels of e-HRM systems in the organization.

4.5 Contextual Factor #3: Organizational Communication Factors

Another important factor that seems to moderate the success of e-HRM systems relate to communication patterns in an organization. Effective communication has consistently been mentioned as one prime requirement of organizational effectiveness (Penrose et al., 2005; Punnet, 2004). This is so because effective communication is essential for people who work together to achieve individual or collective goals (Penrose et al., 2005). Communication, which is the transfer of meaning between persons and groups, ranges in value from completing organization tasks and missions to creating and maintaining satisfying human relationships. Effective communication, on its part, consists of knowing the degree of communication or context that must be supplied to the employees. In another way, everything that the management does is a form of communication to the employees. Some organizations send strong, consistent messages that are easily grasped and understood by employees (Hall and Hall, 1990). Furthermore, organizational messages are imbedded in

the context of the communication and the choice of the channel could be disastrous as a message released due to wrong choice could lead to negative or frustrated response. Additionally, almost all communication can be placed along the fast/slow continuum. For example, a person in essence is a slow message because it takes time to get to know a person well. On the other hand, electronic means of communication are much faster. Many organizations seem to be unaware of the fact that speed of communication determines the effectiveness of communication.

Context of communication is related to how much information is enough for the exchange of messages. A high context communication is one in which most of the information is already embedded in the person where very little information is in the coded, explicit, transmitted part of the message. A low context communication is just the opposite, i.e., the mass of the message is invested in the explicit code (Hall and Hall, 1990; Hoeklin, 1994). Organizations too have a high or low context of communication in their culture. Depending on the nature of the context, e-HRM is likely to be less or more effective. Context may perform multiple functions as shifts in this parameter may either signal a warming of the relationship with the employees or may signal its opposite. Therefore,

P7: The more high-context the organizational culture, the more difficult the interface between e-HRM and employees is likely to be, thus leading to lower net benefit of high levels of e-HRM systems in the organization.

P8: The greater the complexity of the communication elements, the less effective the e-HRM in the organizations is likely to be, leading to lower net benefit of high levels of e-HRM systems in the organization.

5. Conclusion

In this paper, we started with studying an interesting phenomenon - e-HRM system adoption - that is fast gaining popularity. We have argued that conceptually e-HRM systems exist at three distinct levels of granularity. Furthermore, we have argued that implementation of these systems can offer organizations

two distinct levels of benefits, viz., performance improvement and strategic advantage. We have delineated three contextual factors that moderate the relationship between the levels of e-HRM systems implementation and their benefits. These relationships are used to build some propositions that articulate the effect of the moderating factors on the focal relationship. Thus, we have laid the foundation for a theoretical investigation of a contemporary and under-researched phenomenon. Our framework will guide our future research, at the end of which we expect empirical studies to emerge. For practitioners, our framework is expected to provide guidelines and pointers about the success of e-HRM systems implementation. Practitioners will be able to learn from the case studies and brainstorming session findings that we have discussed this research. The main lesson for practitioner here is that they need to carefully evaluate the cost and benefits of e-HRM systems before they commit their organizations to any large e-HRM implementation. In the absence of any such rigorous investigation, where managers evaluate the three contextual factors that we have discussed, they may find themselves in a situation where the promised benefits of e-HRM systems are not realized.

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Somendra Pant received his Ph. D. in Management Information Systems at the Lally School of Management, Rensselaer Polytechnic Institute, Troy, NY. At present he is an Associate Professor of Information Systems at Clarkson University School of Business at Potsdam, NY. During 2007-8, he was a visiting faculty at the Indian Institute of Management, Indore. His current research interests are related to technological, managerial, & identity issues in supply chain integration and strategy & knowledge transfer issues in offshore business process outsourcing. His research has appeared in journals like IEEE Transactions in Engineering & Management, Information and Management, Journal of Product Innovation Management and Information Resources Management Journal.

Abha Chatterjee is Faculty in the area of General Management at IIM Indore. She teaches Business Communication. She has over two decades of experience in teaching, in-company training programmes and consultancy. She has taught at IIT Kharagpur and was part of an Exchange Faculty Programme at the College of Business Administration, Creighton University, U.S.A. where she taught a seminar course on Cross Cultural Human Resource Management. She has international as well as national research publications in refereed journals such as International Journal of Business Ethics, Teaching Business Ethics, Dialogues et Cultures. She has also co-authored the Indian edition of the book titled Perspectives in Business Ethics by Linda Hartmann published by Tata McGraw Hill in 2006 and a book titled Business Communication Today in 2011 with authors Bovee and Thill.

Deepak Jaroliya is Assistant Professor (Senior Grade) in the area of Systems and Quantitative Techniques in Prestige Institute of Management and Research, Indore. Presently, he is on the Editorial Board of Prestige International Journal of Management and Research. He is also a member on the review panel of Tata McGraw Hill Education Private Limited. He is Secretary cum Treasurer of Indian Society of Technical Education, Indore Chapter. He is life member of National HRD Network. He has published research papers, cases and articles in varied disciplines of management and actively involved in editorial work. He has twenty five publications to his credit. He has edited five books published by Excel Books, New Delhi.

Wealth? Or Poverty...?

Socrates: There seems to be two causes of the deterioration of the arts.

Adeimantus: what are they?

Socrates: Wealth, I said, and poverty.

Adeimantus: How do they act?

Socrates: The process is as follows: When a potter becomes rich, will he, think you, any longer take the same pains with his art?

Adeimantus: Certainly not.

Socrates: He will grow more and more indolent and careless?

Adeimantus: Very true.

Socrates: And the result will be that he becomes a worse potter?

Adeimantus: Yes; he greatly deteriorates.

Socrates: But, on the other hand, if he has no money, and cannot provide with tools or instruments, he will not do equally well with himself, nor will he teach his sons or apprentices to work equally well.

Adeimantus: Certainly not.

Socrates: Then, under the influence, either of poverty or of wealth, workmen and their work are equally liable to degenerate?

Adeimantus: This is evident.

Socrates: Here, then, is a discovery of new evils, I said, against which the guardians will have to watch, or they will creep into the city unobserved.

Adeimantus: What evils?

Socrates: Wealth, I said, and poverty; the one is the parent of luxury and indolence and the other of meanness and viciousness, and both of discontent.

- Plato, *The Republic*, Book 4, page: 114.

Managing the Outpatient Department Waiting Time at Rajas Eye Hospital¹

Harshal Lowalekar and N. Ravichandran

It was half past noon on July 29. Dr. Rajiv Chaudhary, the director of Rajas Eye Hospital and Retina Research Centre, had just returned to his chamber located in the first floor of the hospital. He had been in the operating theatre since morning and it was time to take a short break before he could start examining patients in the outpatient department (OPD). He looked at the monitor in his chamber and saw a huge crowd in the outpatient department (OPD) located in the ground floor. The overcrowding had become a routine problem in the OPD of late. He called the supervisor, Mr. Baghela, to his chamber.

"Baghelaji, the waiting problem in the outpatient department (OPD) seems to be getting worse with every passing day. Right now there must be more than 100 people waiting in the OPD. It will get even worse in an hour from now. A close friend of mine called me last night and complained that he had to wait for more than three hours for a consultation. I don't understand why it is taking so much time to see our patients. We cannot afford to make patients wait for several hours in the OPD. I want you to examine as to what is causing so much delay. If need be, we can allocate one more supervisor to help you. We have absolutely no problem in increasing the number of receptionists, nurses, optometrists or even ophthalmologists if there is a need to augment our capacity. Since we have some unutilized space

on the first floor, I am planning to move some OPD operations from the ground floor to the first floor. This may reduce the over-crowding at the ground floor."

Rajas Eye Hospital and Retina Research Centre

Rajas Eye Hospital and Retina Research Centre was established under the patronage of Choudhary Eye and Retina Centre in the city of Indore, Madhya Pradesh. The hospital, equipped with the state-of-the-art equipment, provides quality eye care to the patients of Indore city and nearby villages. The hospital provides a range of specialty services like phacoemulsification, intraocular lens transplantation, contact lens prescription, glaucoma surgery, retinovitreal surgery, squint surgery and oculoplastic surgery^{2,3}. The hospital also organizes camps in slum areas of the city and nearby villages to identify patients and performs cataract surgeries for underprivileged patients free of cost.

Team at Rajas Eye Hospital

The professional team at Rajas Eye Hospital is led by Dr. Chaudhary, who is also the director and the founder of the hospital. He is the president of the Indore Divisional Ophthalmologic Society⁴. He received his M.B.B.S in 1979 and M.S. (Ophthalmology) in 1983 from Mahatma Gandhi Memorial Medical College, Indore⁴. He has performed more than 15,000 cataract surgeries and 1000 retinovitreal surgeries⁴. He is a renowned

1 This case was prepared by Harshal Lowalekar and N. Ravichandran of Indian Institute of Management Indore as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. The authors would like to thank Ms. Vandana Tamrakar for her assistance in the preparation of this case. © 2013, Indian Institute of Management, Indore
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2 Refer to appendix for the brief description of some key terms related to ophthalmology.

3 Source: <http://www.rajaseyehospital.com/facilities.html>, retrieved on 9 April 2013.

4 Source: <http://rajaseyehospital.in/drProfile.html>, retrieved on 9 April 2013.

professional in the field of ophthalmology. Dr. Chaudhary is actively involved in several training programs for junior ophthalmologic surgeons on intraocular lens (IOL) and phacoemulsification surgeries throughout the country⁴. It is mainly due to him that patients from various parts of Indore and neighboring towns visit Rajas eye hospital.

There are three well qualified consultant ophthalmologists at the hospital. They perform surgeries alongside the director. But it is mainly due to the experience and reputation of Dr. Chaudhary that the hospital draws its name and fame. The patients coming to hospital, invariably, come with an expectation to see the director. Dr. Chaudhary makes it a point to see every patient for the final consultation. However, the actual time spent by Dr. Chaudhary on any patient rarely exceeds three minutes. He acts more as a specialist, who confirms the diagnosis made by the consultant ophthalmologists at the hospital. Table 1 shows the team at Rajas Hospital.

Floor Plan and OPD Timings

The activities of the outpatient department (OPD) are conducted on the ground floor of the hospital. The ground floor has separate cabins for the director, the ophthalmologists and the optometrists where they see their OPD patients. The OPD waiting area, in the middle of the floor, has a seating capacity of 80. The floor plan of OPD is shown in Fig 1. A separate chamber cum consulting room for the director is located on the first floor. The patient wards and the operation theatres (OTs) are located on the second and third floors of the hospital respectively. The vehicle parking facility and the dispensary are in the underground floor of the building. The CCTV cameras installed in various parts of the hospital enable the director to monitor various activities from his chamber.

The hospital is operational for five days in a week. The OPD, however, is functional between 10:00 hrs. to 17:00 hrs. for four days: Monday, Tuesday, Wednesday and Friday. The director and the consultant ophthalmologists perform surgeries in the morning and see the patients in OPD after surgeries. Thursdays are reserved only for surgeries.

Patient Flow

New Patients: Approximately 80 new patients visit the OPD on any working day. About 70 percent of these patients visit the clinic after taking an appointment while the rest are walk-in patients (who come without an appointment) due to variety of reasons. The hospital encourages patients to take an appointment before coming to the hospital but has a policy to accommodate the unscheduled ones, as far as possible, during the day. The consultation charge for new patients is Rs. 300. Figures 2 and 3 capture the arrival pattern for new patients with and without appointment respectively. Bulk of the new patients, typically, arrives between 11:00 hrs. to 16:00 hrs. The patients who do not have appointments usually arrive between 9:00 hrs. to 15:00 hrs.

Follow-up Patients: About 20 patients (visiting the OPD) belong to the category of follow-up patients. These patients usually visit the hospital for the follow up on the treatment or the surgery performed during their previous visit(s) to the hospital. There is no formal appointment system for the follow up patients at the hospital. The hospital usually does not charge them. Figure 4 captures the arrival pattern for follow-up patients.

Appointments

The patient appointment is managed and coordinated by the receptionist. A patient can take appointment by phone or by physically visiting the clinic. The hospital also provides the option of taking online appointments through its website. But this mode (website) is not popular. The appointment system at the hospital is completely manual. Depending upon the severity of the health problem and the availability of the slots a patient is provided an appointment. Typically 5 patients are accommodated in a 15 minutes slot. There is no provision for a vacant slot for the walk-in patients who do not have an appointment for the day. The follow-up patients do not require formal appointment under the current system. The patients are expected to arrive at the scheduled time. The patients with appointment are given priority over the walk-ins; however, the hospital tries to accommodate as many walk-ins as possible during the day.

OPD Patient Flow

Fig 5 captures the patient flow for a new patient in the OPD at the hospital. A detailed description is attempted below:

1. Registration: On arrival, the new patient (along with an attendant) registers at the reception counter. The receptionist confirms the appointment and provides a registration form to collect relevant patient information. The receptionist enters the time of arrival and a serial number on the patient form. A consultation fee of Rs.300 is collected at the reception counter. Patient forms are sent to the optometrist(s) and the patients are usually called according to the assigned serial numbers at every stage. The patient waits in the OPD waiting area until called for examination by the optometrist.

2. Optometrist: An attendant calls out the name of the patient to the optometrist room for a preliminary eye examination. An optometrist performs a preliminary eye-sight testing. Once the basic check is carried out, the patient returns to the OPD waiting area for dilation. The optometrist records the results of the eye examination on the patient form. The forms are then sent to the ophthalmologists.

3. Dilation: Dilation is performed by a nurse or an attendant, in the OPD waiting area, for every new patient, before the patient is sent to the ophthalmologist for consultation. Depending upon the patient condition, the dilation takes approximately 30 minutes. Once the dilation is complete (as confirmed by a nurse or attendant) the patient waits for his/her turn (in the OPD waiting area) to meet the ophthalmologist.

4. Ophthalmologist Consultation: The ophthalmologist reads the patient form, performs a thorough examination of the patient and makes a diagnosis. This engagement is for about 15 minutes. Depending upon the severity (of the eye problem) the patient is either recommended a medication or a surgery. The ophthalmologist writes the diagnosis on the patient form which

is then forwarded to the director. The patient waits to meet the director for a brief examination and confirmation of the diagnosis.

5. Consultation with Dr. Chaudhary: Being a renowned ophthalmologist, the patients usually wish to meet Dr. Chaudhary at least once during their visit to the clinic. Dr. Chaudhary spends about 3 minutes with every patient and confirms the diagnosis by the consultant ophthalmologist. The patient then meets the counselor who explains arrangements for the procedures (if any) to be performed based on the diagnosis. The counselor gives the patient his/her medical form. The patient is advised to bring the form along with him/her during every visit. The patient is advised a repeat visit after a week for follow-up.

The follow-up patients do not have to go through all the stages described above. Some follow-up patients just meet the ophthalmologist and Dr. Chaudhary to discuss the progress of their eye condition. In rare cases they are charged a professional/consultation fee.

Patient Waiting Time Study

Mr. Baghela, after returning from the director's chamber, went straight to the senior optometrist, Mr. Jain, and shared with him his conversation with the director. After discussion for about an hour, they could not identify the root cause of the long patient waiting line. Mr. Baghela decided that he would conduct an in-depth data based study in the OPD to identify the real cause(s) for the long waiting time.

The patient waiting time study was carried out with the help of three attendants in the OPD between August 1 to August 24. The data regarding the arrival patterns of the patients and the processing times at various stages was collected over a period of two weeks. Table 2 is the data regarding the total time spent by the new patients in the system from the time of registration until the consultation by the director (called as turn-around time or TAT) on August 2. Table 3 is the TAT for the follow-up patients on August 2.

Table 4 is the data regarding the total number of patients who arrived into the system along with the total number

of patients who moved out of the system on completion of service during various time intervals on August 2. Table 5 captures the performance statistics of the OPD as compiled by Mr. Baghela, based on the two week data.

Table 6 summarizes the processing times for various stages and the duration in a day they are operational. It was particularly perplexing for Mr. Baghela to note that the even though average processing times added up to less than an hour, the patients were waiting for more than two hours in the system.

Possible Solutions to the Waiting Time Problem

Mr. Baghela shared the details of his study with Dr. Chaudhary. The findings, unfortunately, did not provide any (new) additional insights. The crowding problem at the OPD has become very pronounced in the recent times and needed immediate attention. Dr. Chaudhary was considering various options to reduce waiting time at the OPD:

1. Since all the activities of OPD were currently performed on the ground floor, shifting some activities to the first floor may reduce the OPD crowding to some extent.
2. The waiting area of the OPD could be extended by using the space currently being used for vehicle parking. This would, however, require considerable investment.
3. The number of receptionists, optometrist, nurses and ophthalmologists could be doubled to reduce the total processing times at respective stages. The reduction in the average service times at each of the stages may reduce the overall waiting time for the patients in the system.
4. The efficiency of the current operations at the hospital could be improved by implementing an ERP system that will help in automating various processes like patient scheduling, documentation, etc. (which are done manually under the current system) at the hospital.

5. Since the system capacity seems to be a constraint, the OPD could start⁵ one hour earlier in order to increase the number of patients the system can serve in a day.

Table 1: Team at Rajas Eye Hospital

S. No.	Designation	Number
1	Director	1
2	Consultant Ophthalmologist	3
3	Optometrist	3
4	Counselor	1
5	Supervisor	1
6	O.T In charge/Technicians	5
7	Nurse	2
8	Receptionist	3

Source: Rajas Eye Hospital Documents

Table 2: Patient Turnaround Time: New Patients (Sample*)

Patient No.	Appointment Time	Reporting Time	Exit Time	TAT (Hours: Mins)
1	WA**	09:30	12:55	3:25
2	WA	09:30	12:55	3:25
3	WA	09:45	13:40	3:55
4	WA	09:45	13:00	3:15
5	WA	10:10	13:00	2:50
6	WA	10:30	13:30	3:00
7	10:30	10:40	13:05	2:25
8	WA	10:40	13:05	2:25
9	WA	10:45	13:15	2:30
10	11:00	11:00	13:15	2:15
11	WA	11:00	13:35	2:35
12	11:00	11:00	13:25	2:25
13	WA	11:00	13:25	2:25
14	11:00	11:15	13:30	2:15
15	11:30	11:15	13:40	2:25
16	WA	11:15	13:20	2:05

⁵ The appointments in the OPD can be given 9 AM onwards instead of 10 AM.

Table 2 Continued...

Patient No.	Appointment Time	Reporting Time	Exit Time	TAT (Hours: Mins)
17	11:15	11:15	13:45	2:30
18	11:15	11:15	13:45	2:30
19	WA	11:15	13:50	2:35
20	11:00	11:30	13:50	2:20
21	11:00	11:30	13:55	2:25
22	11:00	11:30	13:55	2:25
23	11:30	11:30	14:05	2:35
24	11:30	11:30	14:10	2:40
25	11:30	11:45	14:20	2:35
26	13:30	11:45	14:20	2:35
27	13:30	11:45	14:25	2:40
28	11:30	11:45	14:10	2:25
29	WA	11:45	14:15	2:30
30	12:45	11:45	13:10	1:25
31	12:00	11:45	14:15	2:30
32	11:30	12:00	14:25	2:25
33	12:00	12:00	13:35	1:35
34	11:45	12:00	14:30	2:30
35	12:30	12:15	14:40	2:25
36	WA	12:15	13:20	1:05
37	12:10	12:15	14:00	1:45
38	12:15	12:15	14:40	2:25
39	12:15	12:25	NA***	NA
40	12:30	12:30	14:45	2:15
41	12:00	12:30	14:30	2:00
42	12:00	12:30	14:35	2:05
43	11:00	12:30	14:00	1:30
44	WA	12:30	NA	NA
45	12:00	12:45	14:05	1:20
46	WA	12:45	NA	NA
47	12:00	13:00	14:50	1:50
48	12:00	13:00	14:50	1:50
49	13:00	13:00	14:45	1:45
50	13:00	13:00	14:55	1:55
51	13:15	13:00	14:55	1:55
52	13:00	13:00	15:00	2:00
53	WA	13:15	15:10	1:55
54	13:15	13:15	15:10	1:55

Patient No.	Appointment Time	Reporting Time	Exit Time	TAT (Hours: Mins)
55	WA	13:15	15:15	2:00
56	14:00	13:15	15:15	2:00
57	13:30	13:15	15:20	2:05
58	13:30	13:15	15:20	2:05
59	WA	13:30	16:00	2:30
60	13:30	13:30	16:05	2:35
61	13:30	13:30	16:05	2:35
62	13:30	13:30	16:15	2:45
63	13:15	13:30	16:10	2:40
64	13:30	13:30	15:05	1:35
65	13:00	13:30	14:35	1:05
66	14:00	13:40	16:15	2:35
67	13:15	13:45	16:20	2:35
68	WA	13:45	16:20	2:35
69	13:30	13:45	16:25	2:40
70	13:00	13:45	15:05	1:20
71	WA	13:45	16:10	2:25
72	13:00	13:45	16:30	2:45
73	13:00	13:45	16:30	2:45
74	WA	14:00	16:40	2:40
75	14:00	14:00	16:45	2:45
76	14:00	14:00	NA	NA
77	14:30	14:15	15:25	1:10
78	14:00	14:30	16:45	2:15
79	WA	14:30	15:25	0:55
80	WA	14:30	16:50	2:20
81	WA	14:30	16:50	2:20
82	WA	14:30	16:55	2:25
83	WA	14:45	16:55	2:10
84	15:00	15:00	16:35	1:35
85	15:00	15:00	16:35	1:35
86	15:15	15:15	16:25	1:10
87	15:15	15:15	NA	NA
88	15:15	15:15	NA	NA

*Representative data

** Without appointment

***Not Available

Source: Rajas Eye Hospital Documents

Table 3: Patient Turnaround Time: Follow up Patients (Sample*)

Patient No.	Reporting Time	Exit Time	TAT (Hours: Mins)	Patient No.	Reporting Time	Exit Time	TAT (Hours: Mins)
1	10:10	13:05	2:55	13	13:40	14:50	1:10
2	10:15	13:05	2:50	14	14:00	16:20	2:20
3	10:45	13:25	2:40	15	14:00	14:50	0:50
4	11:35	14:10	2:35	16	14:00	16:15	2:15
5	12:00	13:25	1:25	17	14:15	15:30	1:15
6	12:30	14:00	1:30	18	14:30	16:25	1:55
7	12:30	14:05	1:35	19	15:00	15:30	0:30
8	12:45	13:55	1:10	20	15:00	16:45	1:45
9	13:00	14:00	1:00	21	15:10	16:45	1:35
10	13:10	14:25	1:15	22	15:15	16:30	1:15
11	13:15	16:20	3:05	23	15:15	16:30	1:15
12	13:40	16:10	2:30				

* Representative data

** Follow-up patients do not take appointments in the current system

Source: Rajas Eye Hospital Documents

Table 4: Arrival and Departure of Patients at OPD (Date August 2)

Time	Number of Patients Arrived	Number of Patients Served
09:00 -09:30	2	0
09:30 -10:00	2	0
10:00- 10:30	4	0
10:30-11:00	4	0
11:00-11:30	15	0
11:30-12:00	12	0
12:00-12:30	5	0
12:30-13:00	17	4
13:00-13:30	15	15
13:30-14:00	10	11
14:00-14:30	14	19
14:30-15:00	5	13
15:00-15:30	6	10
15:30-16:00	0	3
16:00-16:30	0	19
16:30-17:00	0	11

Source: Rajas Eye Hospital Documents

Table 5: OPD Volume and Performance

Date	Day	(A)	(B)	(C=A+B)	(D)	(E=C+D)	Average Deviation from the Appointment Time (In Mins)	TAT ⁶ in Hours and Minutes		
								Max	Min	Average
1-Aug	Mon	61	10	71	39	110	36.72	2:50	0:45	1:51
2-Aug	Tue	61	27	88	23	111	19.92	3:55	0:55	2:15
3-Aug	Wed	64	27	91	19	110	23.75	3:40	0:25	1:55
5-Aug	Fri	70	21	91	23	114	30.57	2:55	0:45	1:48
8-Aug	Mon	56	16	72	20	92	20.73	2:20	0:45	1:47
9-Aug	Tue	36	18	54	16	70	30.42	2:30	0:25	1:10
10-Aug	Wed	31	25	56	23	79	28.23	2:30	0:40	1:24
12-Aug	Fri	43	11	54	11	65	38.49	2:35	0:20	1:24
16-Aug	Tue	53	41	94	21	115	26.04	3:35	1:10	2:14
17-Aug	Wed	48	24	72	26	98	36.88	3:45	0:45	2:43
19-Aug	Fri	51	39	90	29	119	34.41	3:55	1:00	2:39
23-Aug	Tue	50	28	78	19	97	27.00	3:00	0:40	2:06
24-Aug	Wed	71	16	87	35	122	53.37	4:20	0:45	2:26
Average		53.46	23.30	76.77	23.38	100.15	31.27			1:59

A- New patients with appointments, B- New patients without appointments, C- New patients (Total), D-Follow up patients, E- Total patients

Source: Rajas Eye Hospital Documents

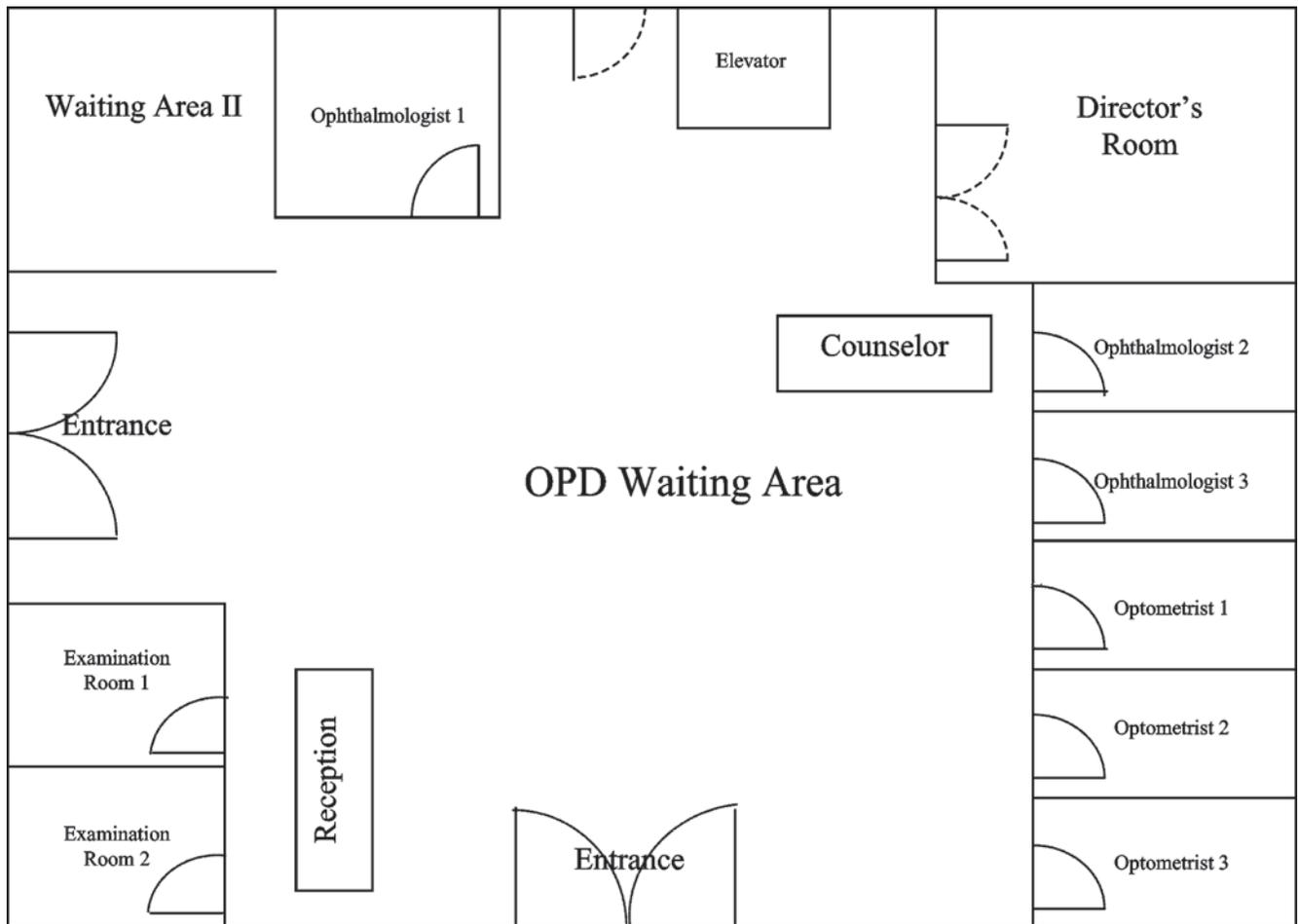
Table 6: Processing Times at various stages

S. No.	Designation	Number	Processing Time /Patient (Mins)	Timings (Hrs.)
1	Director	1	2.22	13:00-17:00
2	Consultant Ophthalmologist	3	6.3	12:00-17:00
3	Optometrist	3	8.6	11:00-17:00
4	Nurse (Dilation)	2	40	10:00-17:00

Source: Rajas Eye Hospital Documents

6. TAT (Turn Around Time): The total time spent by a patient in the system.

Figure 1: Ground Floor Plan (OPD)



Source: Prepared by the case writers

Figure 2: Arrival Pattern (New Patients with appointment)*

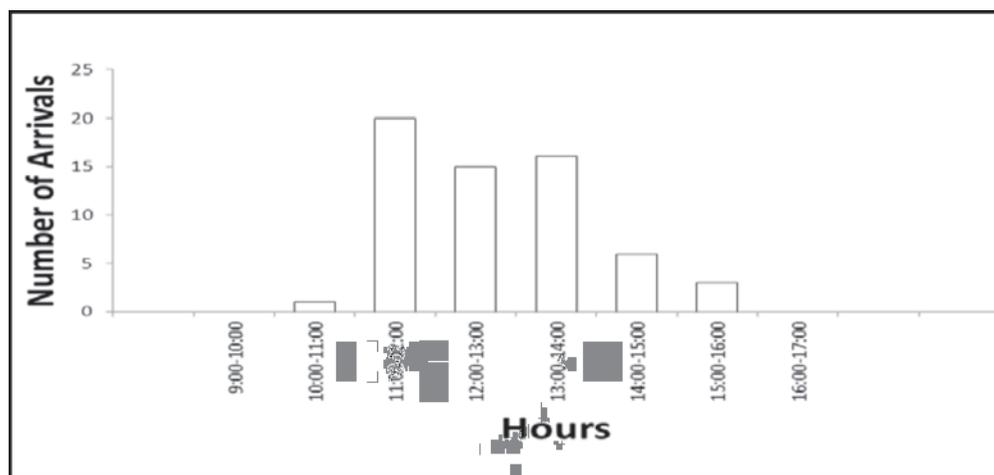


Figure 3: Arrival Pattern (New Patients without appointment)*

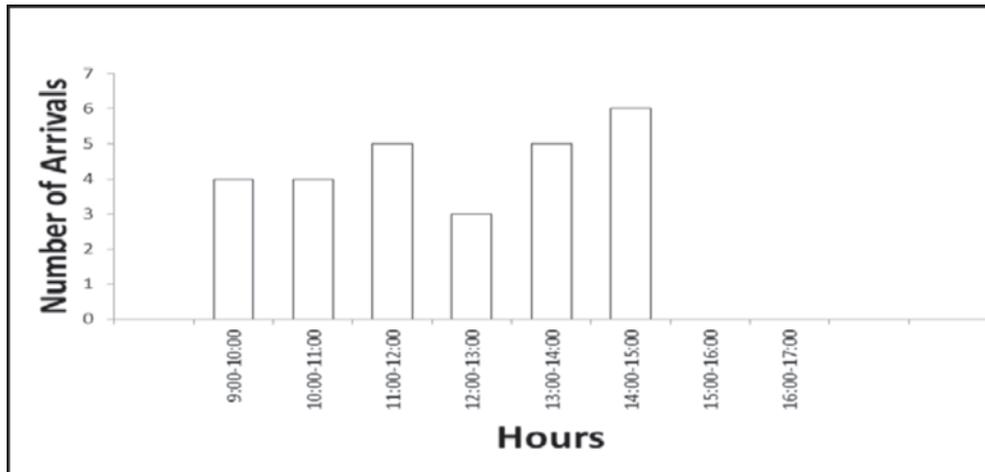
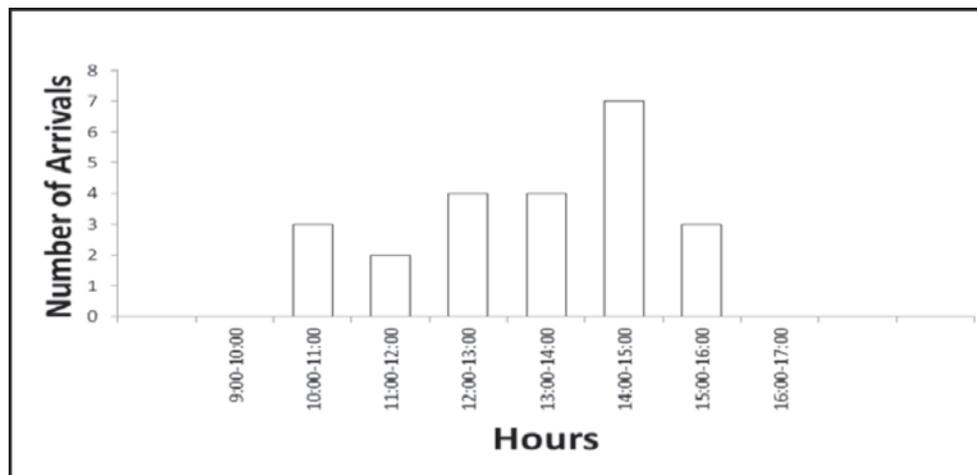
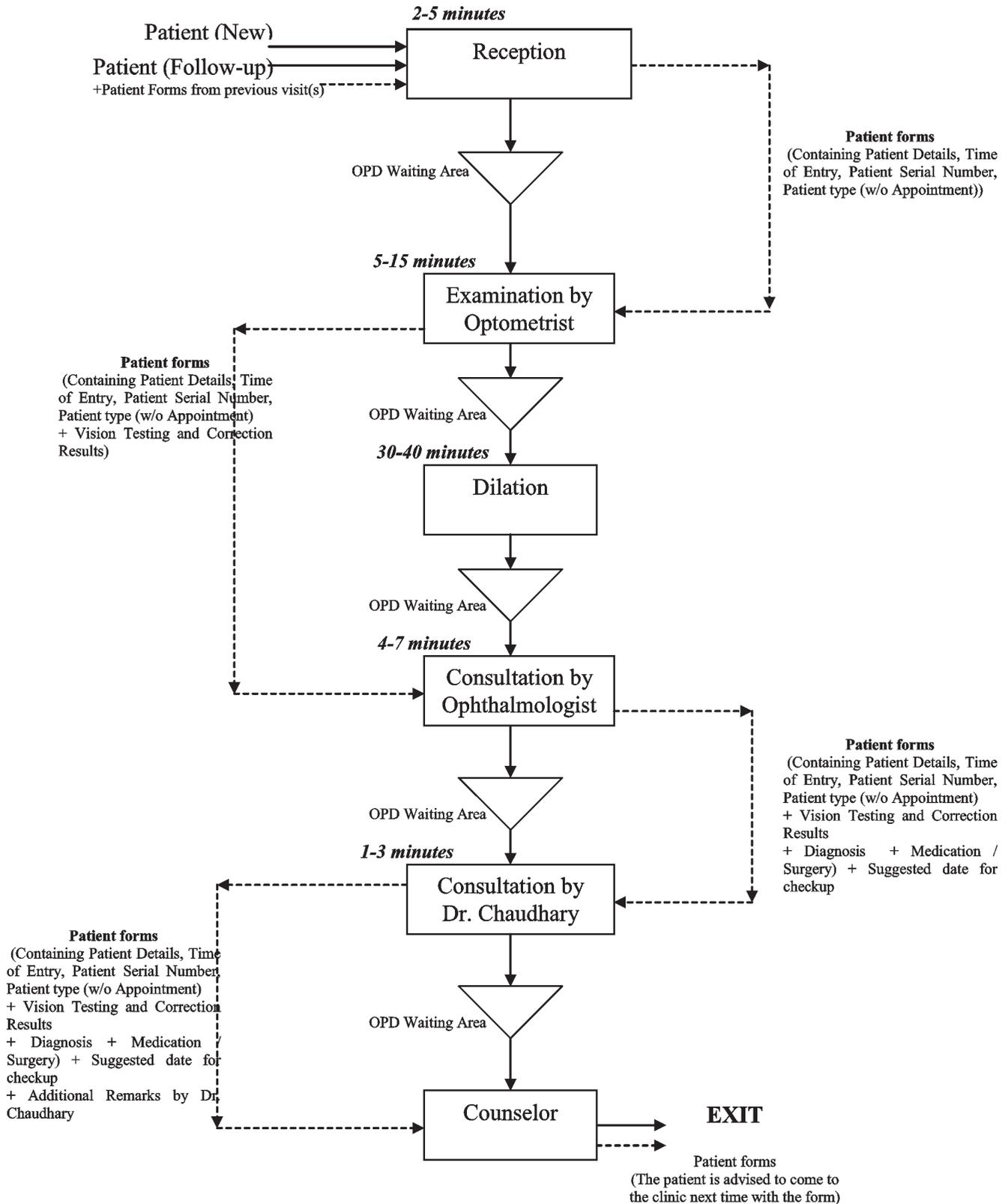


Figure 4: Arrival Pattern (Follow-up Patients) *



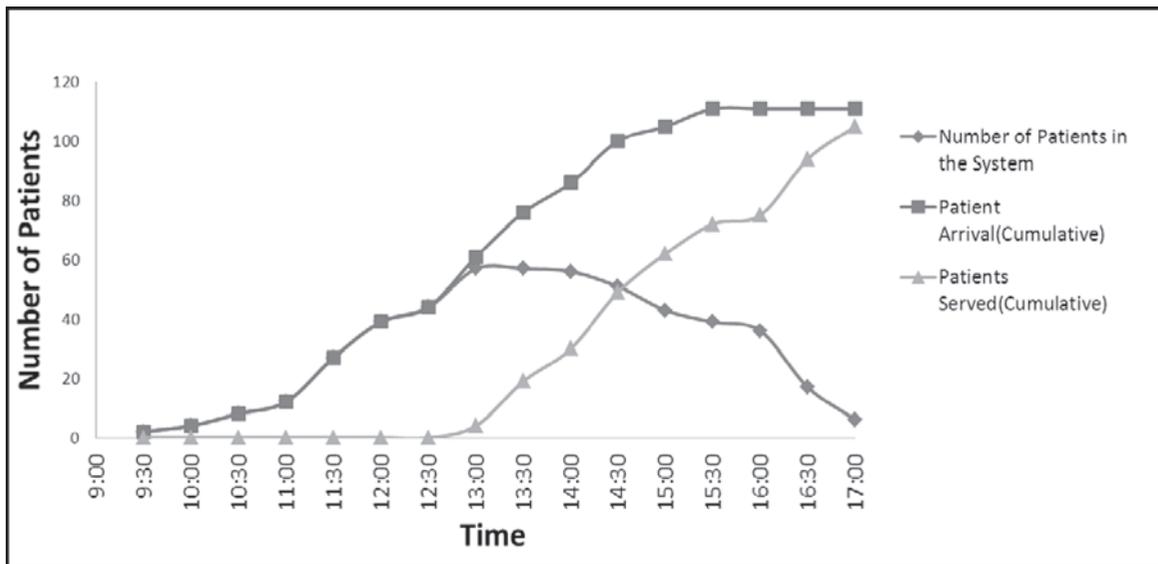
*Source: Prepared by the case writers

Figure 5: Patient Flow in OPD



Source: Prepared by the case writers

Fig 6: Arrival and Departure of Patients at OPD (Date 2 Aug)



Source: Prepared by the case writers.

Appendix: Brief Description of Key Terms

Term	Description
Phacoemulsification	An advanced technique to perform cataract surgery where the eye lens is emulsified using a probe which works on the principle of ultrasonic vibration ^{7,8} .
Glaucoma	The condition in which the pressure in the eye increases and could lead to damage of the optic nerve if not treated properly ^{7,9} .
Fundus Photography	An advanced technology involving a microscope and a camera to capture the photographs of the inner eye surface ^{7,10} .
Retinovitreal Surgery	A mode of surgery using fundus photography for treating retinal diseases ⁷ .
Fundus Fluorescein Angiography	In order to detect the leakage in eye vessels (due to certain eye conditions) the patient is injected with a flurocein dye in the blood vessel of the patient's arm. Fundus photography is then used to detect the possible leakage ⁷ .
YAG Laser	Yttrium Aluminium Garnet Laser. One of the most commonly used lasers in eye surgeries ^{7,11} .

7 Source: <http://www.rajaseyehospital.com/facilities.html>, retrieved on 9 April 2013
 8 Source: <http://en.wikipedia.org/wiki/Phacoemulsification>, retrieved on 9 April 2013
 9 Source: <http://en.wikipedia.org/wiki/Glaucoma>, retrieved on 9 April 2013
 10 Source: http://en.wikipedia.org/wiki/Fundus_photography, retrieved on 9 April 2013
 11 Source: http://en.wikipedia.org/wiki/Nd:YAG_laser, retrieved on 9 April 2013

Harshal Lowalekar is an Assistant Professor in the Operations Management and Quantitative Techniques Area at Indian Institute of Management Indore. He is a Fellow of Indian Institute of Management Ahmedabad.

N. Ravichandran is the Director of Indian Institute of Management Indore. Prior to the present assignment, he had spent nearly three decades at IIM Ahmedabad in the Production and Quantitative Methods Area and in the Business Policy Area.

Managing the Outpatient Department Waiting Time at Rajas Eye Hospital

Hasmukh Gajjar

Case Summary

The case depicts the longer waiting hours of the patients in the eye-care hospital that has resulted into a crowding in Outpatient Department (OPD). It is evident that such waiting is a sign of poor services to the patients who are in critical health. These patients desire to spend more time in the treatment rather than in wait. Managing waiting time becomes very essential aspect in service operations such as this hospital.

Analysis

Examining the situation at Rajas Eye Hospital, the problem of longer waiting hours can be attributed to following reasons:

- Capacity issue
- Variability in arrival and process times
- Improper design of operations
- In-efficient scheduling

The above attributes are discussed below.

Capacity Issue

Analyzing the average processing times given at various stages in table-6, the hospital can serve about 108 patients per day. Hence, it seems that hospital is capable to handle average arrival of 100 patients per day as given in table-5. Therefore, capacity seems to be a non-issue for longer waiting hours.

Variability in Arrival and Process Times

It can be seen from table 5 and Figure 5 of the case that there is large variability in number of patients arriving at the hospital everyday as well as in processing times at various stages. Avoiding variability in processing times is inevitable as processing time depends on the nature of the problem in terms of the severity of their

diagnosis. The variability in processing times often results into longer waiting hours for the jobs when capacity utilization is higher. Hence, it is advisable to keep buffer capacity in the system in order to improve the Turn-around Time in the system. It can also be interesting to divide the patients into different groups based on the processing time requirements in order to manage hospital operations. Perhaps, Mr. Bhagleji would have also collected similar data, e.g. electrical maintenance can better handle the complaints by proper allocation of resources if complaints are classified into minor and major complaints.

It is equally important to understand the arrival of patients and the nature of patients. However, efficient appointment mechanism can control variability in the arrival pattern. It is good that the patients without appointments are discouraged over patients coming with prior appointment.

In-efficient Scheduling and Design of Operations

Examining the operating timings in table-6 of the case, it is evident that the director cannot attend the patient before 1 PM. It is also given in the case that it takes only about an hour for a patient to pass through all the stages in the system. Therefore, if appointment is given from 10AM onward the patients need to wait more than two hours to see the director. It is important that the director being a bottleneck in the system, he need not wait for the patients and waste his precious time. But at the same time, while designing the operations, one has to understand how to synchronize the input and other activities in the operating system with the bottleneck. One can refer the concept of theory of constraints, which can be very useful to avoid such non-synchronization in the operating system.

Recommendations

Given the variability in arrival and processing rates, it is advisable to the director (the bottleneck in this operating system) to start his OPD activity one or two hours early. It is very essential to have flexibility and buffer capacity in the system dealing with variability in arrival and processing rates.

It is equally important to synchronize the input and other processes with the bottleneck to avoid waiting hours between the processes in the operating system. Given the nature of hospital operations, it is possible to synchronize the arrival of patients by proper scheduling of the appointment by the staff.

One can analyze and evaluate various scenarios/alternatives using the simulation tool and observing important parameters like the waiting hours of the patients and average number patients in the hospital at any point of time.

Hasmukh Gajjar is a faculty in the area of Operations Management and Quantitative Techniques at Indian Institute of Management Indore, India. He holds a Ph.D. from the Shailesh J. Mehta School of Management, Indian Institute of Technology Bombay, India. His articles are published in the leading journals like Annals of Operations Research, Asia-pacific Journal of Operational Research and International Journal of Retail & Distribution Management. His major areas of interest are retail operations, modeling and optimisation.



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Managing the Outpatient Department Waiting Time at Rajas Eye Hospital

Rohit Kapoor

The case pertains to a situation of process based service in the context of an eye care hospital. For patients, one of the most common and annoying phenomenon is waiting time. This waiting time is quite universal in nature. For example, we can observe physical queues such as those in front of cash counters in supermarkets, check-in at airports, tickets windows in movie theaters etc. It is worthwhile to mention that waiting may be physical in nature as above or virtual such as the calls waiting in a call-center to be serviced (when a caller hears music!).

The reason of "waiting" lies in the mismatch between supply and demand and in the manner in which this mismatch occurs. This can be explained with the help of following two simple examples:

- Queue starts getting formed at the boarding gate just after the flight is announced: In this situation, expected demand rate becomes greater than the expected supply rate for a limited period of time as a result of which queue gets formed. More specifically, in such cases capacity (supply) is constant but demand exhibits sudden increase leading to implied utilization touching 100 percent over that limited time period.
- Waiting in virtual queue in a call-center: In this situation, even though capacity (i.e., supply) is greater than demand (incoming calls) on an average (implied utilization is well below 100 percent), the queue can still be formed because of the presence of variability in incoming calls.

Although, the difference between the two types of waiting is immaterial to customers (patients in our case). However, for the operations managers it is of significant importance. The root cause of first type of waiting time is a capacity problem and regular operations

tools can be used to address the problem (like opening up more counters/servers) during a short period of time.

The root cause of the second type of waiting time is variability which is the underlying reality of the current problem context. Sometimes, a patient (demand) may wait for the service (supply) or sometimes it is other way around. This results in unpredictable waiting time from the perspectives of both patients and system.

In order to understand the root cause of variability in this problem setting, let us analyze the given situation from the following framework from manufacturing setting:

- **Input to the system**
 - Patient mix: There are patients of different categories arriving at OPD - patients with appointments, patients without appointments, follow-up patients.
 - Random arrivals of patients: Based on figures 2, 3, 4 and table 4 of the given case, it is clearly evident that patients from different mix arrive in random intervals of time.

- **Inherent variation in processing times**

There are different activities for a new patient in OPD such as registration, preliminary - testing by Optometrists, Dilation, Consultation by Ophthalmologist and final consultation by Director. Depending on type of disease and patient, all these steps, carry inherent variation in processing times. According to figure 5 of the case, it takes between 2 to 5 minutes for registration, between 5 - 15 minutes for preliminary - testing by optometrists, between 30 - 40

minutes for dilation, between 4 - 7 minutes for consultation by ophthalmologist and between 1 to 3 minutes for final consultation by Director.

- **Routing**
 - Variable routing: It is clear that all the patients do not follow the same patient flow. For example, follow - up patients just meet the ophthalmologist and Director.
 - Dedicated resource: Somehow, Director has become a dedicated resource as every patient wants to visit him which adds to the queuing problem.

After identifying the reasons for variability in the system, it is important for managers to look for the ways to reduce variability.

Appointment system: For matching supply with demand, a somewhat obvious way is appointment. The Eye - Hospital do have a system of appointment. However, this may not completely eliminate variability in patient's arrival. Patients do not arrive perfectly at the scheduled time slots (15 minutes time slots as given in the case) and some might not turn up at all. The data from table 5 of the case suggests that there is an average deviation of more than 30 minutes from the appointment time by the patients. Some kind of penalty by putting the late arriving patients (deviated from the appointment time - slot) at the last may serve the purpose. However, patients may perceive this unfair. There may be a question "if a Doctor can be late, why not patient". Being in providing eye - care service to the patients, it is highly likely that Ophthalmologists may not keep up with the schedule.

There is another type of problem associated with appointment system. One is not sure, how much of system capacity (in terms of time - availability of Ophthalmologists and Director) should be booked in advance by appointment.

The focus should now be improving upon the inventory of patients (i.e., minimizing it) who wait for an appointment in the waiting area to see either Optometrist

or Ophthalmologist or Director.

Analytical Modeling: This situation can be modeled on the pattern of staffing plan or capacity decision problem in terms of number of servers (for e.g., number of Optometrists or Ophthalmologists) given an inter-arrival time distribution, service-time distribution and constraint such as that only 1 percent of patients will have to wait for more than a specific time (say 30 minutes!). The objective is to find the solution with minimum cost where cost can be estimated in terms of wage rate of resource (Optometrists or Ophthalmologists). However, this may require simulation or more complicated queuing models.

Options to Reduce Waiting Time

1) Matching OPD timings with resource appointment times: If we consider the maximum processing time at all the stages assuming a new patient case, it takes near about 70 minutes. However, turnaround time turns out to be more than 140 minutes (nearly 2.5 hours). So what a patient does for 70 minutes, which is non-value added is an important question.

Based on case information and table 6 of the case, it is obvious that there is a mismatch between the patients' appointment time-slots and Optometrist's, Ophthalmologist's and Director's availability in OPD. Currently OPD starts from 10:00 AM in the morning but resources (Optometrists, Ophthalmologists and Directors) are available only after surgeries (probably in afternoon) in OPD. This is a situation of demand (patient) leading the supply (resource) availability resulting in waiting.

Probably, schedule of OPD appointment for patients can be made and delayed according to the resource availability.

2) Based on the date given in Table 6 of the case, simple analysis shows that Director has become the bottleneck. (Table-1)

This implies that the Director is the bottleneck. Director can start early by an hour or so.

3) Opening OPD for 5 days instead of 4 days: Currently, the OPD is open for 4 days in a week. It is worthwhile to consider opening it for 5 days to accommodate the

Table-1

	Number	Processing Time/Patient (Min)	Timings	Available Time (Min)	Available Man-Minutes	Capacity (Number of Patients)
Director	1	2.22	13:00 - 17:00	240	240	108
Ophthalmologists	3	6.3	12:00 - 17:00	300	900	142
Optometrist	3	8.6	11:00 -17:00	360	1080	125

patients demand on the system. Below are some the comments on the possible ways to reduce the waiting problem mentioned in the case.

Possible ways to reduce the waiting problem

The case outlines several options in the consideration set to address waiting problem:

- Shifting operations to the first floor:
This may help in reducing the number of patients waiting on a given floor. However, reduction in waiting time is still questionable.
- Waiting area enhancement: This may help in adding more seating capacity on the floor but requires investment. Again reduction in waiting time is questionable.
- Increasing the resources: This is a justifiable option.
- ERP implementation: May be looked at.

- Starting OPD earlier: Only add to the current problem. May increase the waiting time for the patients who arrive early.

Usage of Case

Besides introducing the service operations context, this case can also be used to teach the following:

- 1) To understand the basic principle of Little's Law, which says:
Average Patient in the OPD = Average TAT X Average Flow Rate of Patients from the System
- 2) As a context to teach simulation modeling.

Rohit Kapoor is a faculty in the Operations Management and Quantitative Techniques area. He is a Fellow of IIM Ahmedabad. His research interests are in the areas of Supply Chain Management, Production Planning, Inventory Control and Network Design. He has good exposure in Mathematical Programming, Optimal Control, Monte – Carlo Simulation and Meta – Heuristics.

Managing the Outpatient Department Waiting Time at Rajas Eye Hospital

Bhavin J. Shah

This case is about long waiting times in the out-patient department (OPD) of Rajas Eye Hospital that is run by Dr. Rajiv Chaudhary at Indore. Dr. Chaudhary is an ophthalmology surgeon and the activities at the clinic typically comprise of routine check-up in OPD, planned and un-planned eye surgeries, follow-up check up by Dr. Chaudhary and his team at Rajas.

Long patient waiting times have been observed in the OPD of Rajas. It is evident that new patients start reporting from 9:30 am onwards to the hospital and would be waiting for 2-3 hours for consultation. It is reported that though average processing times added up to less than an hour but patients were on average waiting for more than two hours in the hospital.

Team Rajas and its Activities

Team Rajas comprises of Director Dr. Chaudhary; Consultant Ophthalmologists, Optometrists, Counselor, Supervisor, Operation Theatre in-charge and technicians, Nurses and receptionists (Table 1). Clinic is operational on Monday, Tuesday, Wednesday and Friday between 10 am to 5 pm. Dr. Chaudhary and his consultant ophthalmologists perform surgeries in the morning and see patients in OPD after the surgeries. Thursday is reserved exclusively for surgeries and no OPD appointments are given on Thursday. Patients start queuing from 9:30 am on a typical day though official appointments are given from 10 am onwards. Dr. Chaudhary starts seeing patients after the surgery between 1 pm to 5 pm.

Patient Mix at Rajas

From Table 5 on the performance statistics on OPS, it is clear that out of total patients coming for consultation on a day, 77 percent comprise of new patients and rest come for follow-up. Follow-up patients are normally treated without appointments. Surprisingly among the new patients approximately 40 percent come without

appointment. New patient coming without appointment necessarily would indicate an emergency ophthalmic care or an outstation patient requesting consultation on the same day. Data does not reflect much about the mix of local v/s out-station patients.

Patients' Treatment Time Analysis and Arrival Pattern

Table 6 gives data about treatment times (processing) times at various stages. It indicates that Dr. Chaudhary himself has become bottleneck in the system (108 patients/day); the next bottleneck being optometrists (125 patients/day/ optometrist) and the last being consultant ophthalmologists (142 patients / day/ ophthalmologist).

Looking at the arrival patterns given in Figure 2 and 3 in the case; it seems that new patients that come with appointments have to wait longer than the ones who come without appointment. Also a peculiar patient behavior is observed that the new patients who come late in the day with or without appointment can get their consultation faster than the ones who show up in the early part of the day.

Suggestions

1. It seems that the clinic as a system is working at a fast pace that is not in synchronous with the bottleneck activity. In order to improve waiting times of the patients at Rajas, two clear options emerge.

- **Shifting Bottleneck**

If Dr. Chaudhary can come early by 60 to 90 minutes i.e. starts consulting at 11:30 am or 12:00 noon; patient waiting time will be reduced significantly. One needs to look at the feasibility of this option since Dr. Chaudhary is busy performing surgeries in the morning and only then he starts consultation in OPD. This option in a sense suggests that if Dr. Chaudhary can start the day a bit early by about 30-45 minutes and perform

surgeries and starts consultation in OPD at about 11:30 instead of 13:00.

- **Cooling Down - Take Slow**

If clinic cannot start earlier as suggested above the best thing is to cool down the system. Dr. Chaudhary is very quick in his treatment time (TAT) and if he is going to be available only on or after 1pm; clinic should delay scheduling appointments by 60 to 90 minutes i.e. from 11 am or 11:30 am instead of from 10 am. This will give a respite to lot many patients who have been unnecessarily waiting in the system since morning and avoid large buildup in the system.

2. Appointments

- Clinic should treat follow-up patients with appointments only as there is no uncertainty as well as emergency with this side of demand and treatment time is also very much known. Clinic should space out this demand across the day schedule.
- Clinic should schedule outstation patients with emergency requirement in the early part of the day knowing the difficulties in reaching home-town or remote places with dilated eye.

3. Differential Charges

Clinic can also think of opening OPD hours in the early part of the day say 9 am to 1 pm with a caveat that Dr. Chaudhary may not see the patient but any team member of his consulting ophthalmologists

team will see the patient. He can charge lower consultation fees say Rupees 150 or 200 in this slot or charging a bit more for Dr. Chaudhary's consultation in the afternoon. It essentially helps two ways. First, out-station patients who come for emergent eye care can easily be treated by clinic on time. Second, all those patients who necessarily require minor eye care and not necessarily require intervention of Dr. Chaudhary can be treated well in this separate time-slot. It does not require additional investment at all and it takes a certain portion of demand from peak period and helps to space out and serve well.

4. Five-Day OPD

This option may not augur well with the current state of affairs at Rajas. It will result in waiting time just like any other working day and may not space out demand of 4 days across 5 days.

It is a perception that having more patients in the clinic being treated seen by the other patients creates a certain professional image of the doctor in the minds of patients. Many professionals practice this way of working and bunching. If that is the case with Rajas Eye Hospital and more so with Dr. Chaudhary option of cooling down with differential fee structure will fit the purpose.

Bhavin J Shah is a Faculty in the Operations Management and Quantitative Techniques area at Indian Institute of Management Indore. He can be reached at bhavinj@iimdr.ac.in.

Corruption Free India

Vishal Vyas

Prologue

Years 2011 and 2012 have been quite eventful for India. These years will be remembered for some of the largest mass protests in India in recent history, surprisingly not to express anger over a dismal performance of Indian Cricket Team. The reason this time was actually substantial: Indian masses wanted to improve a system which looks awfully corrupt now, thanks to some of the largest scandals in Independent India: Coal Blocks allocation, 2G Spectrum allocation, Commonwealth games etc., and some international reports, one of them by **Transparency International** which placed **India at 94th place among 176 countries in Corruption Perceptions Index**, tied with Benin, Colombia, Djibouti, Greece, Moldova, Mongolia, and Senegal: hardly any country we consider equal to us on any parameter other than of course, this dubious distinction of being corrupt.

These agitations served at least one purpose: people started thinking of corruption as a social problem rather than a political one. So while Anna Hazare and his team were busy fighting for a strong Lokpal (the ombudsman) and the Union Government with its team of legal experts was trying to refute the arguments by citing technical and economic implications, we all started discussing corruption over tea at a road-side tea-stall, in office corridors and drawing rooms of our middle class households. This resulted in some fruitful discussions, which enlightened us to the gravity of the situation, the role we all have played in aggravating the problem and the possible solutions.

Where does the Problem Exist?

While looking at the reasons for corruption, we can identify two levels at which corruption happens:

1. At the administrative, so called white-collar level: which is normally not felt in our day-to-day lives, but affects policy making and is the root cause of the country's economic and administrative problems

2. At clerical or blue-collar level: the everyday incidents of corruption faced by the common man

While we make this distinction, we assume that all the acts of corruption boil down to actions not in accordance with the principles of ideal conduct at some or the other level of governance. Even the private sector, if indulging in corruption, at some level, makes money by colluding with a government functionary.

The Core of the Problem and How it can be Tackled

Here are some checkpoints where corruption commonly happens and some suggestions to effectively cover those loopholes:

1. **Elections** in India are generally accepted as breeding ground of corruption. A political leader spending enormous amount of money to win an election, generally does so with the hope of making multiples of that while in power. An effective remedy to counter corruption at this early level and to encourage honest contestants, who lack monetary support, can be **state-funding of elections**. Since the state can't finance all candidates, a mechanism can be put in place by either linking the assistance to necessary minimum vote percentage or only extending it to candidates of the national parties.
2. **Indian Tax structure requires reforms that are long overdue** and often advocated by economists, industrialists and administrators alike. Efforts should be made to wipe-out multi-level surcharges levied on different taxes which make the calculation process cumbersome. Also, people are encouraged to evade taxes because they don't see their tax money resulting in any improvement whether it is health, education or basic infrastructure. The government can encourage people to act honestly at the ground level by acting honestly at the top.
3. **Bring the documents related to large deals in PSU companies in public domain:** Put up major details

which don't affect their competitive position on respective websites. Also, the role of the political bosses in decision making in PSUs should be minimized with low discretionary power to ministers / bureaucrats who can influence the terms to favor some parties.

4. **Link the pay of PSU bosses/officials to efficiency and performance of the organization:** This will bring the pay structure at par with private sector. Also, for officials found indulged in corruption, there should be exemplary monetary punishment or imprisonment rather than suspension or enquiries which in most cases serve no purpose.
5. Enforcing **reasonable and contemporary laws** and doing away with outdated or unwanted laws that encourage people to circumvent them. Also, there are certain laws which are too complex for a common man to understand, making him vulnerable to harassment by officials who extort money by enforcing such laws. Goal should be to move towards a system where the role of government in day-to-day lives of people is minimized to the bare essential and laws are simple, comprehensible for a common man.
6. **Free police and investigating agencies from political influence:** Often the investigating officer directly reports to some or the other political boss (i.e. minister), which obstructs fair enquiry and trial. A strong ombudsman who works independently of the government can be an effective alternative to the present system. Judiciary is getting corrupted with judges being implicated in some of the recent cases, leading to erosion of faith in this last resort for the fair treatment. I believe judiciary should be accountable to ombudsman.
7. Supervisors/administrators should be held **responsible for corruption taking place in their department.**
8. **Property market is the hotbed for Black-money.** Strict vigilance has to be there to discourage land and property deals which are far undervalued in documentation.
9. As suggested by the honorable Supreme Court, auction **should be the only way for allocating scarce natural resources** like coal, spectrum etc.
10. Last and perhaps the most important, we as the citizens of this progressive country have to pledge not to pay bribes. This sounds Utopian, but if there is no one to pay bribes, none will be able to get it. It is easy to blame our politicians for the state of the country, but we should not forget that they are part of the society and in a way reflect our collective character.

Conclusion

Corruption is a social phenomenon rather than a political or administrative one. The society, with its collective conscience can rise to weed out the root of corruption. With these suggestions I have made an attempt to present my perspective on the issue. I believe some of these have the potential to improve, if not transform the picture and help build a **CORRUPTION FREE INDIA.**

Vishal Vyas is an Electronics and Communication Engineering graduate and has 8 months work-experience with Accenture Services Pvt Ltd. He is a PGP participant at IIM Indore (2012-14 Batch) and is currently a member of the Institute's Industry Interaction Cell.

Corruption Free India

Sindhuri Vankina

I would like to begin by stating that the topic itself is a Utopian concept and represents a state of affairs which may not be practically possible.

The dictionary definition of corruption is: The immoral or dishonest exploitation of power or position for personal gain.

This gain is normally construed as gain of money. However, it actually would include all forms of gain - monetary and non-monetary. So even the phone call from an influential uncle to get an emergency quota ticket on a train or a priority darshan at Tirupathi, normally given to influential government servants, politicians or businessmen would come under corruption. Most of such actions do not involve the transfer of any money and culturally most Indians do not consider these acts as either immoral or dishonest but the honest truth is that they are a form of corruption.

So to be practical, I am going to just focus on corruption in the government involving politicians and government servants and suggest a solution for it.

I feel that most corruption in the government is a result of the lack of transparency in the system coupled with obsolete bureaucratic processes and rules which the common man cannot understand, nor is he aware of. And this complex system is then manipulated by dishonest people for personal gain. The complexity and the lack of transparency in the process ensure that it is very difficult to track the corrupt individuals and this encourages more and more corruption resulting in a rotten system.

Over the last few years the Right to Information Act (RTI), the media and the courts have been instrumental in exposing big-ticket corruption like the 2G scam etc. However, the efforts have not been effective enough to create a corruption free India because of the bureaucratic roadblocks, legal framework and cost of collecting the information, etc.

My solution is to use the Internet, Innovative Software Applications and Data Analytics to create a modern 21st

century infrastructure which makes it easy for people to use the RTI and existing or new laws to collect information and expose it thereby creating a big disincentive for corrupt people. The sheer transparency and ease of access will ensure that even within the existing legal framework we can achieve a corruption free India.

Aadhaar is in the process of revolutionising delivery of government subsidies and ensuring that the subsidies reach the targeted population and in the process would remove corruption to a great extent. The massive investment of over Rs. 15,000 Cr in it is expected to be recovered in just a few months. This has been confirmed by Pilot studies and this is only 2-years old.

Similarly, the government should provide extremely fast broadband and wireless internet availability across the length and breadth of the country but with subsidized rates (as it does the NREGA or diesel subsidies) and ensure that Internet access is available at extremely low prices, if not for free.

Government should also think of subsidising private individuals, companies or even NGOs by encouraging them to develop e-governance applications which involve extensive use of document management systems and work-flow based decision making systems. Data-Analytics can be incorporated into these systems to throw-up red-flags which can be further investigated through case dossiers created by a team of highly trained auditors - under the existing CAG of the state or centre, who have been specifically recruited for such a job.

This should be a public initiative, headed by a prominent professional or a group of high quality professionals. And I am sure this public initiative will attract great individuals who will create great applications leading to big difference.

It should then ensure that the entire e-governance process is available for public view on freely available public portals with options to download the contents of any file. Being easily accessible to the public should be the

key to the entire project. The government can install terminals with Internet access at all government offices which can be used by the public for free. It can also license NGOs or even private individuals to provide the same service of searching and downloading in a system similar to what IRCTC does.

The computer application will include the scanning of the pages of the actual files including the file-noting and also track the date and timings of the movement of the file as a work-flow. Note that for the cases where privacy of individuals and/or secrecy is involved, adequate checks and balances can be incorporated.

In short, an extremely transparent system where nothing is hidden from public view will be created and made available at extremely low prices or for free. This system can be incorporated into the RTI act as it basically does the same thing but in a different manner.

If this is also accompanied by a LOKPAL sort of system where the information collected can be examined and action taken if anything is found amiss, it would scare

the daylights out of all the corrupt people involved. However, even without a LOKPAL the sheer transparency of the system will ensure that corruption in India is reduced.

Once the politicians and government servants get the strong message that it will be a very easy process for the masses to find out if the system has been manipulated for personal gain, then actual change will start happening.

Those who have entered politics or the government for personal gain will no longer contest elections or join government service as it will no longer be a profitable option for them. A new breed of politicians and government servants will then replace them - people who will be relatively honest, resulting in a corruption free government.

Sindhuri Vankina is a first year student of the five-year Integrated Program in Management (IPM) at IIM Indore.

Every man who knows how to read has it in his power to magnify himself, to multiply the ways in which he exists, to make his life full, significant and interesting.

- Aldous Huxley

Corruption Free India

Vinod Kumar

India is one of the most suffering nations in the world plagued by corruption. As per the Transparency International report 2012 India ranked 94th, dropped 11 places in one year. According to a Swiss Banking Association Report (2006), "India has more black money than the rest of the world combined together." The black money in India, in some reports, estimated to be 40 percent of the country's gross domestic product (GDP). Taxes on this count could turn the fiscal deficit into a surplus and provide adequate resources for the social and physical infrastructure.

Problem of corruption is even deeper than the above mentioned figures. It adversely affects human life, deprives people of their fundamental rights and makes life miserable for majority of the population. It is affecting the economic, social growth of the country by creating a negative environment for hard working people and wrongly allocating scarce resources (including human) to counter-productive people and to counter-productive works, away from the developmental need of the Nation.

Though corruption seems to be an obvious word, for an effective cure, one needs to understand various forms of corruption having different sources, basis, motivation, beneficiaries & victims. Sometimes the bribe-giver may be a victim, & sometimes the bribe-giver may be a beneficiary and the victim is remote & indirect. Sometimes the motive of indulging in corruption may be to serve individual interest (e.g. in public sector), and sometimes it may be an organisational gain (e.g. in corporate sector). Sometimes beneficiary is driven by too high ambition, sometimes by compulsion. Accordingly the reaction of victim, motivation to fight against corruption etc. is affected, which in turn, affects the law enforcement. Therefore solution of the problem should also address the multiple-dimensions involved in it.

In addition, there is another form of corruption termed as "Quiet Corruption" by the World Bank. Recently there was a news that in the first 6 month of the year 2012, no FDI proposal was cleared, which impacted

overall investment & economic growth. Recently there was also a news that in the first half of the financial year 2011-12, a large part of the government budget was not spent because bureaucracy was avoiding taking decisions, which affected overall economic growth, and related consequences. It's obvious that those who don't work have zero contribution in Growth & productivity; Additionally, being a bottleneck in the production process, they are more counter-productive. Large proportions of people, almost unproductive or counter-productive, act as bottleneck to the system and drain off the economic resources and also create hindrances in smooth functioning of the system. Their non-working makes corruption acceptable to employees, which is very harmful.

There are many other dimensions of motivation behind the corrupt activities. This includes value system of the nation, availability and effectiveness of Law as a deterrent against different forms of corruption, multiplicity of agencies dealing with corruption with limited roles. Our administrative structure is helping corruption, especially corruption in Politics. At the top level, there is authority & discretion but almost no fixed responsibility, e.g. transfer & posting is one of the big source of corruption which is in the hands of people holding authorities such as the Politicians. Transfer/Posting being a routine work and discretionary in nature, it is difficult to control corruption at this point, even though it is considered as 'Gangotri' of all corruption. High importance to 'performance measurement' but the scope of high discretion in performance evaluation enhances the flow of corruption from top to bottom.

Thus a comprehensive view of corruption is needed, taking a narrow view will limit the effectiveness of anti-corruption efforts and may result in a bigger problem. Theoretically, a system is called secure if net expected gain (expected gain less expected loss) is negative. Therefore, as a solution to make country corruption free these five aspects should be seriously taken care of. The system designed should have focus on minimising the variables on left hand side & maximising right hand

Probability of getting success if crime done X Benefit if successful	$<$	Probability of getting caught X Probability of getting punishment if caught X Amount of loss/punishment if got punishment
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side variables, with no oversight on any variable.

Solution accordingly will require:

1. **Administrative Reform:** A corruption free nation means administrative mechanism is performing at its best. Corruption mainly means the corruption in bureaucracy and its related chain effect. The lack of motivation & compulsion to perform duty at ones best and misuse of power to serve personnel interest give birth to corruption everywhere. Administrative reform, like citizen charters, should ensure to make duty compelling, through ensuring punishment for failure in duty, properly defining role & responsibility, setting performance norms & targets, reducing discretion, providing self-monitoring & transparent system etc. In order to achieve this recruitment, training and posting of sufficient number of qualified people should be done.
2. **Legal Reform:** The balance of the above equation or net expected gain would largely depend on the Legal system. This is most important for ensuring the non-deviation in motivation from duty. In a country, which is so infamous for corruption, the track record of punishing people is pathetic, making corruption a rewarding tool. Legal system need to be made more independent, strict, effective & active, such as Lokpal Bill, increasing victims participation, for quickly detecting any deviation, ensuring immediate trial of the culprits, speedy justice in trials, and strict punishment to the culprit so that they can never get benefit of their sins. For this also we need to increase

the number of courts as per the workload, and also recruiting, training and posting sufficient number of qualified people as needed. No action can be a better substitute of high probability of punishment and faster execution.

3. **Socio-cultural Change:** We need to understand the limitation of law. A law will be as effective as its people are. Therefore, the investment in our value system, education, social awareness etc. needs to be increased. People should also be educated to make themselves free from the greed of consuming product & services of dishonest businesses considering long term loss. The commitment to honesty and hard work should be made by everyone. A cooperative commitment against corruption should be developed.

A comprehensive and result oriented strategy including punishment for wrong, incentive for right, accompanied by socio-cultural reform will only meet the desired objective. Ultimate objective of "corruption free India" is to make a country of hard-working people and thus no tolerance for quiet-corruption. A continuous and comprehensive review of our legal & administrative system to check its effectiveness against above mentioned five variables is required.

Vinod Kumar is a research scholar at IIM Indore in Finance & Accounting Area. He is a Management Graduate from IIM Lucknow with specialisation in Finance. He has worked in EPFO, India in the management position for more than 10 years.

Contemporary Banking in India

Yogesh Maheshwari

Naina Lal Kidwai (2012), Contemporary Banking in India, Businessworld Books, Price: Rs. 595, Pages : 320, ISBN: 978-93-81425-02-2.

There could not have been a more worthwhile effort to illuminate the issues relating to banking in India, than this book "Contemporary banking in India" by Naina Lal Kidwai. And there could not have been a better time as well, with the sector witnessing frequent changes at regular intervals, as never before in the history of existence of banks in India.

Banking is the bloodline of any economy. In its prime role of transferring funds from fund surplus units of the economy to the fund deficit units, it assumes paramount importance in the development of any economy. No surprise that safety and soundness of the banking system has been a prime concern for all nations since times immemorial. This has been the key motivating factor for all major changes in the banking sector; call it the Glass Steagall Act of 1933 or the Gramm Leach Bliley Act of 1999 or any such other driving force.

The world in 2012 had faced an immense economic uncertainty. While the end of the tunnel may still be anybody's guess, not only Europe or the United States of America but many other nations across the globe are defining and redefining banking structures as preventive or operative mechanisms, notwithstanding the Basel III requirements. These changes have been in quick succession through the last year. What was applicable on a given day may not have been valid on the next. To my mind, writing a book on contemporary banking under such circumstances is a brave attempt because unlike newspapers, books are not likely to be revised everyday in order to ensure its contemporary intent.

The book is an excellent bouquet of the views of some of the most prominent bankers of the country on some of the very contemporary themes that the Indian banking industry has been facing. While it deals with these

issues, it also lays down the challenges and opportunities that need to be addressed. The themes belong to a wide range including corporate governance, risk management, financial inclusion, priority sector lending, market structure, and infrastructure financing.

Perhaps, only a person of the caliber of Naina Lal Kidwai, a management graduate from the Harvard Business School and Country Head and Executive Director on the Asia Pacific Board of HSBC, and an active contributor to several high level committees could have woven such individual powerful theme threads into the fabric that this book has been. The book aptly commences with her take on the road map for the Indian banking sector. This opening note makes way for the remaining contributions.

The book is compartmentalized into four sections. The first article of the first section is authored by Chanda Kochhar, Managing Director and Chief Executive Officer of ICICI Bank and deals with the transformation of the Indian banking sector. The article is an exhaustive representation of the reforms witnessed by the Indian economy since the 1990s, the resultant overall economic growth and the evolution of the Indian banking sector through these times responding to the changing economic environment, and the way forward for the sector to meet the demands that it would face, notwithstanding the challenges that could impact it. The author opines that the changes would be substantial and rapid and may also enable the Indian banks making their presence felt at the global level.

Next to come in is Adil Jainulbhai, Chairman, McKinsey India, who enlists some important trends that would shape the new emerging market opportunities for Indian banks in the next decade. Some such trends would include global market changes, massive urbanization, wealth concentration, evolving consumer behavior, and

regulatory and technological transformations. The author also provides structural analysis of the growth opportunities for Indian banks in the coming decade, such as deepening household savings, providing banking to the unserved and underserved sections of the society, and capturing opportunities for nextgen banking. The article concludes on a prescriptive note, identifying certain functional skills that would become critical to win, namely managing capital, creating customer centric business model, managing risk, and developing leadership.

Subir Gokarn, Deputy Governor, Reserve Bank of India, opines that given the constraints that Indian banks may face in human capital and financial capital, knowledge capital is advocated to assume center stage. Knowing your customer is knowing just not his name and address but more importantly his needs and aspirations. The author argues that the financial sector must practice KYC (know your customer) in order to Grow with Your customer (GYC).

In the last article of the first section, MV Nair, former Chairman and Managing Director, Union Bank of India, makes a case for the Indian banks to rise to the challenges emerging from a new class of customers whose demands and needs would be different from those of the existing pool of clientele. This would be the tech savvy customer seeking excellence and convenience, having low loyalty and diversified savings and investment needs. After outlining the profile of this nextgen consumer, the author elucidates the challenges and opportunities that this consumer will bring in to the Indian banking sector.

Section two commences with the views of DV Subbarao, Governor, Reserve Bank of India, on corporate governance of banks in India. He establishes how corporate governance in banks is different and critical, the way it has evolved over the years, and that regulations can complement corporate governance but not substitute it. The author invites readers' attention to five important issues in corporate governance of banks, namely, ownership, accountability, compensation, split in the post of chairman and chief executive officer, and the financial holding company structure. It is certainly interesting to witness the regulatory head citing the

notion of 'dharma' as existing in 'The Mahabharata' to explain the concept of corporate governance.

The next article by Jaspal Bindra, Group Executive Director and CEO Asia, Standard Chartered Bank, takes the discussion on corporate governance forward. The article links the effectiveness of a board to its composition. It lays down the responsibilities that the boards should own, such as succession planning, regulatory compliance, risk management, and efficacy of audits, besides overseeing the strategic implementation for the bank.

The third article in this section is by Viral V Acharya, CV Starr Professor of Economics, NYU Stern School of Business, who discusses the implications of Basel III requirements for India. The author makes a detailed attempt to outline the prescription of the latest version of the Basel norms, their consequences and more importantly the risks that the resultant transition of the global financial system poses to the emerging economies such as India. In the process, it also raises some larger regulatory issues for India and the lessons it can learn thereof.

Financial inclusion happens to be the mainstay of the third section of the book. KC Chakraborty, Deputy Governor, Reserve Bank of India, initiates the discussion with the definition and desirability of financial inclusion. An update on the present state of financial inclusion in India is followed by the challenges that lie on the road ahead. The next article by Ananth et al. further substantiates these shades of financial inclusion. Neeraj Agarwal, Partner and Director, Boston Consulting Group, India, completes the trio on financial inclusion.

Aditya Puri, Managing Director, HDFC Bank, raises priority sector lending as another contemporary issue relating to Indian banking and suggests a review of the composition of priority lending given the development in the economy and the need for making it viable from the bankers' perspective. The next article by PJ Nayak, Managing Director and Country Head, Morgan Stanley, India, tries to assess the ability and willingness of Indian banks to innovate given the evolving shifts in the market structure. Interestingly, the author argues that experimentation and differentiation in India have

focused less on product innovation and more on process redesign and distribution efficiencies.

Sunil Bharti Mittal, Chairman and Group CEO, Bharti Enterprises, follows up with the contributions that the telecommunications infrastructure can make to the growth of banking in India and the advantage that mobile banking has over the traditional brick-and-mortar banking model in achieving the larger objective of financial inclusion. One good element of the book has been that besides all the quantitative aspects of banking it also includes the evolving paradigm of sustainable development. Rana Kapoor, Managing Director and Chief Executive Officer of Yes Bank talks about sustainability in finance and the need for developing a viable approach for banks.

Section four, which is the last one, deals with the issues relating to public sector banks, foreign banks and non banking finance companies. While KR Kamath, Chairman and Managing Director, Punjab National Bank, attempts to identify a new mantra for growth for the public sector banks, MD Mallya Chairman and Managing Director, Bank of Baroda explores the role of banks in financing infrastructural development in the country. Gunit Chadha, Co-Chief Executive Officer, Asia Pacific, Deutsche Bank outlines the role of foreign banks in India's growth over the last few decades and the role that could be played by them in future. The last two articles, one by YM Deosthalee, Chairman and

Managing Director, L&T Finance Holdings Limited and the other by Arun Duggal, Chairman and TB Kapali, Vice President, Shriram Capital discuss the role and importance of non banking finance companies in the economy.

While I called putting together a book like this as a brave attempt, writing a review to such an effort is equally challenging for similar reasons. Many more changes would have come in by the time this review reaches the hands of the readers. The maxim "change is the only permanent thing in this world" is best exemplified. However the theme will continue to be valid at all times to come. If Indian economy has to have a dominant presence in the global economy by 2050, Indian banking will have to grow manifold. In doing so, the top three challenges being faced would be those of capital, asset quality and financial inclusion.

Yogesh Maheshwari, Ph.D., is a Professor of Finance at the Indian Institute of Management Indore, India. His core teaching and research areas belong to financial management, financial markets & institutions, banking, security analysis, and investment management. He has more than 21 years of work experience, spanning the financial services industry as well as academics. Besides publishing articles in journals, he has also authored two textbooks, one titled "Managerial Economics", Third Edition and the other "Investment Management", both published by PHI Learning, India.

The Hedgehog Effect: Executive Coaching and the Secrets of Building High Performance Teams

Shiva Kumar Srinivasan

Manfred F. R. Kets de Vries (2011). *The Hedgehog Effect: Executive Coaching and the Secrets of Building High Performance Teams* (San Francisco, CA: Jossey-Bass), Price : Rs. 2773, Pages 289, ISBN 978-1-119-97336-2.

What is the optimal distance between the members of a team? That is the main question which is addressed in this book. The figure of the hedgehog is invoked in the title as a way of thinking through the implications of this question in the form of an experiential analogue. The figure of the hedgehog comes originally from the work of the German philosopher Arthur Schopenhauer. The hedgehog effect pertains to a behavioral trait of hedgehogs that prompts them to huddle as close to each other as possible as a gesture of solidarity, but they also move away when their sharp quills begin to hurt each other. This, in turn, leads to loneliness and a craving for company; the hedgehogs then move as close as possible to each other again until through trial-and-error they hit upon the 'optimal distance' to both maximize solidarity and to ensure a sense of individual well-being. Likewise, finding out the optimal distance between team members is a technique to ensure not only the positive team dynamics, but to also ensure high levels of team-based performance. Understanding the hedgehog effect then will be of enormous use to those working in or consulting in areas like Human Resources Management and Organizational Development. The advice that Manfred Kets de Vries of INSEAD shares with his readers is based on a lifetime of consulting, research, and teaching in the field of behavioural sciences. The method of study invoked here is eclectic and comprises a willingness to learn from the psychological insights provided by a range of areas in the behavioral sciences. What all these areas have in common though is the notion of 'psychodynamics'. The methodological assumption here is that it is important to both understand and leverage on the psychodynamics of team formation in order to put together high performance teams (that can withstand the pressures of relentless competition).

In order to do this successfully, Kets de Vries argues that we must begin with an understanding of what in fact constitute the underlying structure of groups and teams and delineate the circumstances in which groups become teams. What is required to make this transition happen seamlessly is 'coaching' since what emerges spontaneously in terms of group formation and group dynamics may not necessarily provide optimal solutions for high performance teams. One of the areas that Kets de Vries has taken the trouble to study, develop, and deploy in his own work in the behavioural sciences is executive coaching. Executive coaching has emerged as not only an area of academic specialization in the behavioural sciences in European business schools, but also as a form of psychodynamic intervention within different forms of executive education. Here then is an account of how the modalities of executive coaching can make a huge difference in making teamwork much more successful than might have otherwise been possible. Coaching is not necessarily a way of correcting inadequacies in individuals, groups, and teams, but is rather a way of thinking through problems of organizational design with the specific requirements of the customer, client, or project in mind. Routine invocation of coaching-based psychodynamic interventions has started to gain a high level of acceptability and traction in the European markets. It is not uncommon to encounter organizational situations where executives and leaders demand access to highly-paid executive coaches as a way of enhancing their own levels of performance and success. This is all the more relevant given the decline in the average tenure of CEOs throughout the world. Coaching is to the corporate sector then what psychoanalysis is to medicine and the psycho-dynamically inclined professions in the past. The locus in which the crucial experiments for these

coaching programs are being conducted is at the leadership laboratory that Kets de Vries has set up at INSEAD. What is unique about these attempts is that unlike previous studies in the academic literature, the goal of these programs is to institutionalize the HR 'deliverables' that emerge as a result of efforts at executive coaching for individual employees, leaders, groups, and teams. Getting these deliverables right requires a simultaneous interest in the meta-psychology of these psychodynamic phenomena along with the ability to translate these insights into transformative encounters for executives and change agents in organizations. Kets de Vries argues that the eventual goal of such transformative attempts is not reducible to individual careers, but must lead to the development of 'authentiziotic organizations'.

The adjective 'authentiziotic' is to organizations what the humanist quest for authenticity is to individuals. Or, to put it another way, there is no point urging individual employees to be authentic unless there is an attempt to simultaneously create organizations that can support such employees in a sustainable way. The actual modalities involved in designing such organizations is the theoretical and practical goal to which Kets de Vries has dedicated his career in the behavioural sciences and the psychoanalysis of organizations. While this is a theme that recurs in his work, it requires a number of theoretical iterations across a range of contexts since Kets de Vries has to start with this organizational ideal, demonstrate that such ideals are indeed worth invoking, and then translate them into actual deliverables (keeping in mind the specific requirements of executives and the levels of the organizational hierarchy to which they belong). The 'clinical' approach to organizational diagnosis, development, and deliverables is based on the assumption that psychodynamic factors cannot be wished away in the attempt to set-up value added processes or routines, and that the analysis of such phenomena must invoke both the tasks that are relevant in a given function. It must also incorporate the locus from which the concerned employees are operating. Delineating the psychodynamics that are relevant to the accomplishment of a given set of tasks then is an important clue to what is at stake in the 'fit' between

the employee and the organization. The higher the level of fit, the easier it is to invoke the ideal of authenticity since it will involve less effort on the part of the employee to discharge his role responsibilities. What is true of individual employees is also true of groups and teams. The development of HR deliverables however depends on translating the existential protocols of fit into actual instances of value-added performance in organizations. That is the basic challenge in executive coaching, leadership laboratories, and management development programs which draw upon psychodynamic approaches in the top business schools in Europe and elsewhere. The work of Kets de Vries provides an interesting point of entry for readers who wonder how - if at all - business academics, consultants, and executive coaches translate the psychodynamics of behavioural theory into interpersonal interventions. These are also the sort of insights that change agents are on the lookout for since any attempt at organizational change invariably opens up the organizational unconscious if sufficient care is not taken to understand the extent to which the leadership can 'contain' and 'work-through' the affects experienced by the employees. It is not enough then to merely invoke employee 'resistance' as an explanation to the challenges of change without understanding that what employees resist in the change process may not be linked to the ideational content of change per se, but the affective dynamics of having to working-through something new and different. Managing the libidinal economy of organizational routines then is a way of 'suturing' the emergence of the organizational unconscious before it leads to an outbreak of anxiety amongst employees. These are a few instances where a psycho-dynamically informed coaching process can help executives to re-invent themselves without losing touch with their inner selves whether they work as individuals or as teams.

While I have not attempted to exhaust or multiply examples of such interventions as an end in itself, the goal here is to acquaint readers with the challenges involved in thinking through the psychodynamic determinants of human behavior in organizations, and share with them the theoretical instruments that behavioral scientists use to measure these phenomena.

Kets de Vries analyzes the role and applications of these instruments in the consulting process in a separate appendix. In addition to these instruments, readers must also remember that Kets de Vries uses the 'live case study' which he innovated at INSEAD as something more appropriate than the traditional case study. In this model of education, executives make presentations before fellow CEOs on their own strengths and weaknesses as human beings and relate their notion of leadership to the story of their lives in the leadership laboratory as an instrument of personal and organizational transformation. This is all the more important because before leaders can change their organizations and the world, 'they have to change themselves'. Only then will they be able to reinvent themselves sufficiently to keep pace with the challenges of the contemporary world. This book will be of relevance to anybody who believes that the psychodynamics of human behavior can be a perennial source of insight into organizational behavior, organizational development, and human resources management. It can also help leaders evaluate whether they need to invoke a formal model of executive coaching to enhance

the effectiveness of their teams, and, if so, on how they should go about doing so. It will also be of help to researchers who wish to study organizational psychology in depth, and who are wondering what the functional implications of doing so are in terms of the continual need to develop new tools, techniques, and instruments in both business academia and the realm of organizational consulting. Since the author is a consultant to several companies in North America, Europe, Africa and Asia, he is able to draw upon his organizational learnings from a varied range of industries. This book will therefore be of use to a number of different sectors and corporate firms though the beneficiaries from these interventions have not been named in the interests of maintaining client-based confidentiality.

Shiva Kumar Srinivasan has a Ph.D. in English and Psychoanalysis from Cardiff University, Wales. He is a professor in the Behavioural Sciences area at the Indian Institute of Planning and Management, Chennai. Prof. Srinivasan has previously served as a faculty at IIT Kanpur, IIT Delhi, IIM Ahmedabad, XLRI Jamshedpur, LIBA Chennai, and IIM Kozhikode.

Turning Points: A Journey through Challenges

Wallace Jacob

A.P.J. Abdul Kalam (2012). Turning Points: A Journey through Challenges, HarperCollins Publishers India, Noida. Price: Rs. 199; Pages x+182, ISBN: 9789350293478.

An Overview of the Book

Turning Points is the twenty-first book of Dr. A.P.J. Abdul Kalam in which he shares his dithyrambic eye-opening experiences in fourteen mesmerizing chapters, an epilogue, an afterword, and two appendices. The book is in fact a sequel to Wings of Fire which has covered the Missile Man's odyssey till the year 1992. The book has some of the iconic photographs which include the photograph of A.P.J. Abdul Kalam in the cave of one of the greatest philosopher's of all times - Socrates. It touches on several other topics, such as Providing Urban Amenities in Rural Areas (PURA), National Prosperity Index (NPI) which is of paramount importance keeping in view the present scenario when several nations across the world are experiencing economic turbulence.

Review

The preface contains the reasons for which Dr. Abdul Kalam has penned the book under review. In the Acknowledgement section the author of the book explains that there have been eight turning points or challenges in his life which helped him emerge as successful in life's voyage hitherto. The first chapter dwells upon Dr. Kalam's interactions with politicians, scientists, artists, writers, religious heads, legal and judicial communities, non-resident Indians, medical practitioners, farmers, policemen, panchayat presidents, teachers, various associations and institutions. The chapter brings out the fact that Dr. Kalam used to read the letters and emails sent by people from all walks of life and even used to forward the letters to the official concerned for supplementary action which at times yielded fabulous results (one of the resultant actions finds a mention in the afterword section towards the end of the book). The second chapter briefly touches

on the events from 10th of June to 18th of July 2002 which changed the course of action of the scientist and academician, Dr. Kalam, when he was elected as the President of one of the largest democracies in the world. The third chapter is devoted to the seven turning points in the life of Dr. Kalam. The fourth chapter explains how G2G e-governance operations were expedited when Dr Kalam initiated e-governance at the Rashtrapati Bhavan. It also elaborates on the steps initiated by Dr Kalam to obtain first-hand knowledge of the development in the states and union territories of India. The fifth chapter performs an intricate examination of the national addresses on the eve of Independence Day and Republic Day as well as the speeches delivered to parliamentarians. It exposes the sordid underbelly of the people in fiefdoms of power. It also identifies the five key areas wherein India is having core competencies. Through a real-life incidence the sixth chapter brings forth the meaning of a Hadith (a saying or an action by Prophet Mohammad) which says 'When the Almighty appoints a person to a position, He takes care of his provision. If a person takes anything beyond that, it is an illegal gain'. The chapter talks of the sanctity of Manu Smriti, offers much from a Haj pilgrimage and discusses Dr Kalam's personal meetings with Field Marshal S.H.F.J. 'Sam' Manekshaw, prominent Indian novelist and journalist Shri Khuswant Singh, several interactions with Shri Satish Dhawan (erstwhile chairman of ISRO) and several Prime Ministers. The seventh chapter examines the significance of nanotechnology, e-governance, bio-diesel, water, energy, the successful testing of a missile and a few other space activities. The eighth chapter contains Dr Kalam's conversations pertaining to the crash of the Airborne Surveillance Platform on the 11th of January 1999 with Prof. Arun Tiwari. The ninth chapter is devoted to Dr Kalam's visit to a state which did witness

horrendous and tragic events in 2002. The tenth chapter presents a few highlights from Dr Kalam's visit to Sudan, South Africa, European Union, Greece, and Switzerland. The eleventh chapter exemplifies the style of Management By Walking Around (MBWA) and Management By Participation. It illustrates how developmental work was done at rapid speed in one of the villages only because of the fact that the President was desirous to visit the said village. The twelfth chapter presents the panoramic view of few of the well-preserved exquisitely designed gardens. The thirteenth chapter examines the nitty-gritty of a famous case related to the dissolution of the Bihar assembly based on the concerns of the then governor due to which Dr Kalam had prepared a letter of resignation. The fourteenth chapter provides a glimpse of Dr Kalam's ventures after having completed his presidential term.

The epilogue is a treatise on improving the working of the heart of the democracy. The afterword explains how Acharya Mahapragya resolved the turmoil pertaining to the nuclear empowerment of India, which had been haunting Dr Kalam's mind for a considerable period of time.

Overall Impact of the Book

Each chapter begins with a quote which sets the tone of the chapter. Each chapter also ends with a quote which explains the effect of certain incidences on the life of the author of the book under review. The book has several takeaways. The first chapter will definitely take the reader from the real world to an imaginary world where there are no problems at all because all

are conscious of their work and sounds too good to be true. But it does prove that God has blessed the citizens of India with the power to catapult India into an orbit of continuous growth. At some places the clef of the book is so exhilarating that the reader would be able to feel a sudden rush of adrenaline through his/her body. The book focuses on the splendid use of information technology for faster decision-making and systematic work-planning and implementation. It will be very helpful to the champions of Management By Objectives (MBO), creativity and innovation. The tome will be especially of great help to parliamentarians. The book examines the causes due to which there has been delay in delivering justice in the trial courts, high courts, and the Supreme Court and also lays down the nine suggestions which will certainly help in timely administering justice. It will also help the reader in understanding how physical, electronic, and knowledge connectivity can lead a country towards economic growth.

Today, history books speak a lot about the justice system set up by the famous emperor Salim Nuruddin Jahangir. In a few years Dr Kalam's innovative measures towards improving political administration might find their way into several text books across the world.

Wallace Jacob has done his M. Phil. in Management. He is presently working as a Senior Assistant Professor at Tolani Maritime Institute, Pune, where he teaches Principles of Management and Project Management. His book reviews have been published in journals published by IIM Lucknow, IIM Indore, IMI New Delhi, Bharathidasan Institute of Management Tiruchirappalli. He has also presented a few papers in various conferences.

Multiculturalism: A Very Short Introduction

Sreelekha Mishra

Rattansi, Ali (2011). *Multiculturalism: A Very Short Introduction*. Oxford University Press. Price: USD 11.95; Pages 184; ISBN: 9780199546039.

Ali Rattansi has been educated at the Universities of Manchester and Cambridge. He has written many books including *Race, Culture and Racism* (1992); *Racism, modernity, and Identity* (1994) and *Racism: A very short introduction* (2007). He is a visiting Professor of Sociology at City University, London.

Multiculturalism is a body of thought in political philosophy about the proper way to respond to cultural and religious diversity. Multiculturalism has been used as an umbrella term to characterize the moral and political claims of wide range of disadvantaged groups, including African Americans, women, gays, lesbians, and disabled. Most theories of multiculturalism tend to focus their arguments on immigrants who are ethnic and religious minorities, minority nations and indigenous people.

Ali Rattansi explores the contemporary debate surrounding multiculturalism that spans from national identity to social cohesion and from cultural fragmentation to political correctness. Through this book he is raising some important questions surrounding multiculturalism and through the deliberations on these questions he is trying to explain the concept of multiculturalism and its relevance to the readers. The questions that he poses at the very beginning of the book are Has multiculturalism failed? Is it time to move on? And if so, what is the alternative?

The book comprises five chapters. The first chapter deals with what basically multiculturalism is and deliberates on the origin of the concept of multiculturalism. Is multiculturalism bad for woman is the question raised in chapter two. Chapter three explores the issue of ghettos created by multiculturalism. Chapter four and five deals with integration, cohesion and national identity.

The first chapter builds the origin of the concept of multiculturalism in the context of cultural diversity in different countries such as Canada and Australia. In

this chapter more or less the author tries to explain group rights and individual rights under the umbrella of multiculturalism. He argues that there is always contradiction between group rights and individual rights. But he strongly mention that group rights have no rights over individual members. He argues that supposedly traditional cultural practices cannot be allowed to override to considerations essential to human rights and ability of members of any ethnic group to dissent from the supposed cultural traditions of their ethnic groups. He also emphasizes policies to be more effective for reducing ethnic disadvantages.

In second chapter, the author explores whether multiculturalism is bad for women? To answer the question, the author puts forward the point that multiculturalism is clearly bad for women if multiculturalism involves support for the survival of ethnic minority cultures and their traditions i.e., disadvantage women. For example, forced marriages and honour killing still exist in the society. Similarly, in July 2008, France denied citizenship to a burka wearing woman of Moroccan origin on the ground of her radical practice of Islam. This French decision raise a number of crucial issues that go to the heart of debates about the relationships between women, multiculturalism, national identity and religion-especially Islam.

The author puts forward the argument that, women should not be disadvantaged by their gender; they should be recognized as having human dignity equally with men, and the opportunity to live as fulfilling and as freely chosen lives as men can. The author cites Okin (1999) to argue his point. According to Okin, "Multiculturalism is harder to pin down - the minority culture, or ways of life are not sufficiently protected by ensuring the individual rights as member of group but they should have special rights".

In the third chapter the author stated that none of the reports into 2001 disturbances blame multiculturalism

for the events or underlying social factors that led to division and hostility between communities. And they certainly do not use the term "ghetto" to describe the ethnic 'clustering'. The author also describes the concept of 'integration' and argues that integration remains as a dominant theme in the new alternatives to multiculturalism. It emphasizes the need to assess its appropriateness to the issues such as the multiethnic issue faced by the European nation states. For example, in France and Netherlands and elsewhere, the idea of 'integration' and 'common values' to unite minorities and the majorities have also come to form the centerpiece of new citizenship policies.

In the fourth Chapter, 'The pitfalls of integration' the author explains that the key problems in ethnic relations are the failure on the part of minorities to 'integrate' into the European society into which they have migrated. According to Rattansi this is the central motto of the new approach (i.e. integration) that is replacing multiculturalism.

In chapter five, the author raises the question that if 'integration' or the British idea of 'community cohesion' is replacing multiculturalism in Europe, then integration into exactly what? Or cohesion based on precisely what? This idea is bound up with the idea of national identity. Integration and cohesion have always implied that minorities and new immigrants need to abide by and take pride in whatever considered to be the core, the defining essence of the particular nation into which they have been the privilege of entry and eventually fall membership. It is the Muslims who have become the target for the program of community cohesion and integration in Britain and the rest of Europe as identities of all British especially those of its ethnic minorities are complex, unstable and shifting.

The author argues that seeing the European nation states, it seems multiculturalism is over. Thus the question he raises is whether multiculturalism has failed? As regarded by governments, intellectuals and large sections of the national population as either disastrous or at least a serious wrong turn in the response to immigration by non-white populations usually from former colonies to the European powers in the period

after 1945 at the end of second world war.

The author further enquires whether this is the whole story? The author has mentioned that though there are certain flaws of multiculturalism, it is not necessarily lead to the conclusion that multiculturalism has been a disaster or even a major mistake.

Western European nation states, the emergence of post-and the restructuring of the welfare state-and the multicultural policies that developed in response to immigrants have influenced the overall national cultural fragmentation and national identity.

Despite all cultural-wars, in USA the general principles are embedded especially in education and national narrative. In UK and else where in Western Europe, all public media has been dominated by those who wish to have multiculturalism. In Europe, policy and ideological shift has taken place but it has not always moved away from multiculturalism. It is rather transformation beyond multiculturalism which might be called 'interculturalism'. For Rattansi, it is a transformation beyond multiculturalism which is called interculturalism.

Multiculturalism is important for understanding a changing reality at national and international levels. Multiculturalism used in such a normative sense, refers to an ideology that attaches positive value to cultural diversity, calls for equal recognition of different cultural groups and calls upon the state to support such groups in various ways. "We are all multiculturalist now", Nathan Glazer declared with characteristic bluntness and authority in 1997. Multiculturalism of course has had bad press in recent years, but the charges against multiculturalism as set out in public debate are either misguided or exaggerated when set against evidence garnered by social scientists and from government inquiries. The various chapters in this book identify what multiculturalism actually means assess the complaints against multiculturalism. Anyone interested in understanding culture might find this book very useful.

Sreelekha Mishra is a Doctoral candidate at Indian Institute of Technology Indore.

Return of Influence: The Revolutionary Power of Klout, Social Scoring, and Influence Marketing

Payal S. Kapoor

Mark W. Schaefer (2012). *Return of Influence: The Revolutionary Power of Klout, Social Scoring, and Influence Marketing*. McGraw-Hill (printed in the United States of America), Price: Rs. 1418, Pages 215, ISBN: 978-0-07.179109.0

A lot is being spoken and written about the power and reach of social media. Numerous books, articles and blogs have explored how social media is responsible for rapidly changing lifestyle of people and even various aspects of managing businesses. Despite the plethora of literature available, *Return of Influence: The Revolutionary Power of Klout, Social Scoring* by Mark Schaefer is the first book of its kind to bring forward a distinctive and an extremely critical aspect of social media: Influence. Millions of users are conversing with each other via social media platforms but how many of them have the true power recommendation to influence? Huge amounts of Word-of-Mouth (WOM) about products and services is generated via social media platforms and for the first time marketers truly have the means to capture, measure and even manipulating it to their advantage. Schaefer, in this book, calls this the rise of "Citizen Influencer". Citizen influencers are the everyday users of social media who possess both "offline" and well as "online" traits that make them powerful and influential on the social web. Different ways and means are being adopted by marketers to first identify these "citizen influencers" and second utilize them to meet their own marketing goals.

The book is divided into two parts with each containing six chapters: The roots of influence; Klout and social scoring revolution. First part, as the name suggests brings to fore traits that allow certain everyday ordinary user to be more influential than others on social media platform. The author kick starts the introduction of the concept of "citizen influencers" by sharing the example of the launch of Virgin America's route to Toronto. He explains how the markets with the help of social scoring application, Klout, identified 120 most influential users on social media for the given geography and the given

purpose. Once identified these 120 users became the epicentre of a programmed social media WOM campaign leading to a total of 7.4 million impressions by the end of the campaign. Author with this example explains that the true power of influence can arise through simple "conversations between real people", even if it is happening via social media. He highlights how marketers have begun to leverage it without spending millions of dollars in hiring celebrity spokespersons and executing multimedia campaigns. He then goes on to explain how selective users of social web become more influential than others and anchors his findings on seminal works that have been done in the fields of psychology and marketing to understand "offline" influence and WOM. The offline traits iterated by him, based on the work of Robert Cialdini, include: authority; likability; consistency and scarcity. With the help of anecdotes and further explanations he concludes that each of these offline traits is equally applicable and relevant on the online social media space as well, and further iterates two online traits: social proof and reciprocity. Social proofs, in the online context, are cues that add credibility and makes users more influential than others. These social proofs on the social media context include number of followers, friends, retweets, likes and favourites. He even goes to extend of saying that sometimes these social proofs, "badges of influence", may be more influential than authority derived from true knowledge and expertise. Finally he writes a full chapter on how good content is critical for deriving power and influence. In the last chapter of part one, the author highlights traditional examples of age old brand like 3M, Mary Kay Ash etc. to highlight how WOM and influence has played their role in the history of brand building.

The second part of the book focuses on the business of social scoring and how an application called Klout based on a complicated algorithm, developed by Joe Fernandez, has done the impossible: giving an influence score to every individual active on social media. The author traces the history of how the organisation came into being and even reveals three key aspects of a user's social web behaviour on which the algorithm is based: users true reach; amplification probability; network influence. He highlights, through examples of real brands where social scores derived from Klout and other similar applications have helped marketers execute and monitor an "administered WOM" campaign. However, he also candidly explores the limitations of the application. Further it brings to fore the criticisms the application has received. In the concluding chapters the author even suggests ways in which an individual user can actually increase his or her score by beating the system. He also brings forward views of marketers, consultants and even a few high scoring "citizen influencers" on the future of social scoring

Being the first book of its kind to talk about influence on the social web, it makes the book inherently useful. This book is targeted at practitioners, academicians, researchers and even individual aficionados of social media who are curious to increase their social score. While part one of the book, anchored quite a bit on traditional literature of the subject, is more valuable and substantial for the understanding of this unique trend of "citizen influencers", part two was very practitioner focused. Only one of the chapter dedicated towards writing good content on the social web was a bit monotonous and unnecessarily lengthy, but on the whole an interesting and enriching book for people who are interested in having a better understanding of the social web.

Payal S. Kapoor is a third year doctoral student at Indian Institute of Management Indore. Her area of research is Marketing.



Indian Institute of Management Indore

Management Development Programmes

OCTOBER - DECEMBER 2013

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2.	Brand Management	Ashish Sadh	Oct 07 - 09
3.	Interpersonal Effectiveness and Team Building	Sushanta K. Mishra	Oct 21 - 23
4.	Effective Recruitment and Selection	Amitabh Deo Kodwani	Oct 28 - 30
5.	Managing Complexity	Kajari Mukherjee	Nov 11 - 13
6.	Excellence in Manufacturing	Omkar D. Palsule-Desai	Nov 11 - 15
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9.	Lean Six Sigma	Ravindra Gokhale	Nov 27 - 29
10.	Strategic Cost Management	Keyur Thaker	Nov 27 - 29
11.	Hospital Management	Bhavin J. Shah	Dec 02 - 06
12.	Communication Skills for Managerial Success	Abha Chatterjee	Dec 02 - 04
13.	Train the Trainer Programme (T3P)	Amitabh Deo Kodwani	Dec 16 - 18

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Indian Institute of Management Indore
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Research Papers should

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