



Year XI, Vol. I, Summer 2010

Managing Change and Beyond...

tapasya

In Focus Pharmaceutical And Biotechnology Industry

Chief Patron :

Mrs. Tarita Shankar,
Chairperson, IGI

Patrons :

Prof. Chetan Wakalkar, Group Director, IGI
Dr. Prachee Javadekar, Director, IIMP
Dr. Renu Bhargava, Director, ISBS

Editorial and Advisory Board :

Ms. Rasika Wakalkar, Former Editor-in-Chief
Editor : Prof. P. G. Vijairaghavan

Prof. Bijoy Guha
Prof. Chetan Wakalkar
Dr. Neha Sharma
Dr. Dilip Sarwate
Ms. Manjoo Phadke

**Co-ordinator - Publication and
Circulation :**

Ms. Manjoo Phadke



**Indira Institute of Management – Pune
(IIMP)**

Indira School of Business Studies (ISBS)

Indira School of Career Studies (ISCS)

Indira School of Communication (ISC)

Indira Group of Institutes

Editorial Office : 85/5A, Tathawade, Near
Wakad Police Chowkey,
Pune - 411 033.

Phone : (020) 22933280-84

Fax : (020) 22934742

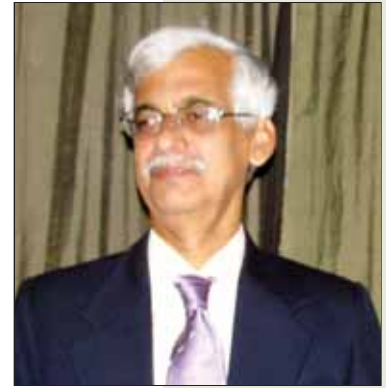
E-mail : vijai@indiraedu.com

Website : www.indiraedu.com

www.indiraundergrads.ac.in



If the 20th century belonged to the IT industry in catapulting India to the world business stage, the current century can well belong to the Pharma and Biotechnology sector, which are becoming the mascots of a rising India. Their contribution to India's international trade and domestic healthcare is likely to be another industry success story, which many countries worldwide might like to replicate.



The name C. K. Prahalad rings not just a bell, but a gong in the minds of those in Management, particularly in India. If he walked the world of Management like a colossus, it was not without reason. For, he inspired passion in the Indian businessman to go for the towering heights of international business dominance. He betrayed a sense of restlessness and impatience to see values he saw as being critical to a business contribute to the success, growth and dominance of Indian industry worldwide. It may not be wrong to say, whether it was strategy, or his discourse on core competence, it was CK who changed the way India Inc. perceived itself. In many ways, he was able to help Indian business to discover its fortune after generations of self-doubt and belief that it was at the bottom of the business pyramid ! That this unassuming, simple and yet, one capable of such sophisticated thinking is no more available to us, to propose fresher thinking on ways to bring value first to the customer, and in the process, growth to the corporate entity, is a sad fact of the day. Tapasya pays homage to this icon of modern Indian business in the inside pages through a selection of tributes, and his path breaking writing on core competence!

“The road to hell is paved with good intentions...” so said the bard. How true that it applies equally to Governments as it does to individuals. Good intention is what we have got in plenty from the present Government at the Centre and if there could be a Nobel Prize for Best Intentions, our political class would win hands down! Nevertheless, one does feel a level of satisfaction that this Government has at least articulated the crying needs of the billion plus citizens of this country, most so of the teeming millions that pass for the poorest of the poor. But more needs to be done. The Women’s Reservation Bill at last got a move on in Parliament, even if, like the coming of new life from the mother’s womb – kicking and squealing all at once. But then, it is not yet law and the minions who occupy the seats in the Lower House of Parliament are yet to condescend to making it count for Women’s empowerment in India. From the looks of it, it is not going to be an easy run for the Bill if political bargaining strengths that are being readied are any indication. Not surprisingly, the ones who have made objections known to its coming are the ones who are known to practise it the least – in their personal lives, or within their own parties! But of course, they have, according to them, “legitimate” reservations (euphemism for prejudice, one can presume!) on the same, chiefly on the subject of reservations within reservations. And who knows, we may yet see the Bill languishing in the archives of Parliament House unless there is a genuine intent among the lawmakers to raise the common Indian woman to some level of empowerment, so as to be able to have a say at least in issues that concern Womanhood in particular. Does it seem possible? I wish I could say it does... But honesty of thought makes me skeptical of any such possibility in the near future. And the reasons are not far to see... Every few minutes, despite the existence of a plethora of laws, a girl child gets abused or traded in the market like a commodity; a woman is raped and murdered in India by the so called stronger sex, reprehensible practices like Sati are still being revered in parts of India that can make one detest the ‘progress’ we have made in other areas, the female foetus is lucky if she gets out of the mother’s body alive in many parts of India when we already have a law against sex determination and female infanticide!

“

It may not be wrong to say whether it was strategy, or his discourse on core competence, it was CK who changed the way India Inc. perceived itself. In many ways, he was able to help Indian business to discover its fortune after generations of self-doubt and belief that it was at the bottom of the business pyramid !

”

Or the noble intention to provide education to every child in the country through the Right to Education. Wish it were so simple. In most States, atleast the girl child is eligible for free education upto the secondary level. Has this ensured that all girls attend school and gain minimum education? In a land where child labour is seen as a resource – both by the employer and the child's parents- is it a surprise that even years after the law banning child labour, it is alive and well in India? It is therefore not unusual to see the roadside tea stall owner, the construction contractor, the newspaper vendor and many others practising what is a palpable offence under Indian law. Yet, little do we hear of any action against such employers unless there is a fire in a cracker factory, or an accident at a construction site, when all hell breaks loose to nab the 'culprits' who of course go underground till the brouhaha settles down and a short while later, it is business as usual.

What I am getting at is – what use is framing laws when we do not have the wherewithal or more importantly, the will to practice it and to rid society of the ills of a tradition of abuse and almost inhuman suppression of an entire gender and class of our citizenship. Do we not believe that the political class can achieve more by educating the public with whom they have an equation and influence, than by adding to the tomes of laws in the country whose content they themselves are not clear about? Sorry to sound like a cynic, but if the Constitution of India which is the largest written constitution in the world is an indicator of the good intentions of the Lawmakers of the day, India should have been a land of milk and honey 60 years after adopting it. We are nowhere near as educated or developed as its makers intended us to be! It is universally acknowledged that the woman is the fulcrum around the family's development process; and once she is freed from the clutches of an insensitive past, she can catapult the fortunes of the family and hence society, towards development like no other Government program can! Unfortunately, one cannot escape the conclusion that the intent is obvious only to pave the way for the future... and lacks the will to loosen society's vicious grasp today, on resources that can set India free on the road to progress never before imagined.

This issue of Tapasya takes a brief look at the Pharmaceutical and Biotech Sector. Much water has flown under the pharma bridge after the amendment to the Patent Law that came into effect in 2005. This has caused a near tectonic change in the way we perceive the Pharma sector in India. The boom in contract research, the multi angled approach to branded and generic drugs, the continuing debate on the ethics and other aspects of clinical trials in India, and the immense contribution of the Biotechnology sector to the healthcare industry as a whole are interesting areas which we have attempted to discuss with the help of some of the best practitioners in the profession. Of course, there is a lot more that needs to be written about with regard to this sector, but constraints of time and space insist we lay the deck open for the reader to make a more detailed study if he be so inclined.


We have also added some features towards making your reading of Tapasya more interesting and enjoyable. Hope you find it meets these needs!


“

Do we not believe that the political class can achieve more by educating the public with whom they have an equation and influence, than by adding to the tomes of laws in the country whose content they themselves are not clear about?

”



Editorial – P. G Vijairaghavan  3

Tribute to a Legend – P. G Vijairaghavan  6

tapasya Bears Fruit  10

Profiling C. A. Allen Pareira, CMD,
Bank of Maharashtra

In Focus : Pharmaceutical and Biotechnology Industry

Curtain Raiser : Pharmaceutical and Biotechnology Industry
– P. G Vijairaghavan 15

Clinical Research in India – Dr. R B Ghooi & Ekta Kalra 17

Nutraceuticals : Nature's way to nurture – Madhvi Joshi 21

Indian Pharma Industry : An Insight from the IP Perspective
– Taranpreet Lamba 26

Time for Pharmaceutical and Healthcare Reforms – Dr R. B. Smarta 30

Cure for an Ailing Industry? Pharma Multinationals Seek a
Panacea in Indian Acquisitions – IndiaKnowledge@Wharton 33

Industrial Biotechnology – Piyush Palkhiwala 39

Miscellanea

In a Nutshell 45

Smile Awhile 47

Health, Fitness & Grooming

Dress Codes and Style Management – Suneeta Sodhi Kanga 49

Netiquette – Suneeta Sodhi Kanga 49

Events @ Indira  53

All opinions expressed in the articles are those of the authors.
The Editor, the Institute and the Publisher bear no responsibility for the same.



C. K. Prahalad.... the passing of a seer !

P. G. Vijairaghavan

A crystal ball gazer could not have been more correct in expounding the future of business than C. K. Prahalad was when he set about his theory of the "fortune at the bottom of the pyramid." In that sense, he was more like a water

diviner in a parched terrain of the rural outback, tapping the dry, drought hit land to proudly proclaim, "Water" And the rest of course, as they say, is the changed history of the corporate world as it will appear in the days to come. Specially in India, where the theory found immediate acceptance and relevance by corporates who would never otherwise have gone beyond Peter Drucker and Philip Kotler's prescriptions for corporate growth. One of the first practitioners of his "fortune at the bottom..." theory was C. K.

“

More than anything, Prahalad is an example of what Indian minds can do given the opportunity and space to make known their beliefs, and to encourage others to believe in them, proving that humble beginnings are no bar to a truly brilliant mind from making its contribution to the world at large.

”

Ranganathan's Cavinkare which introduced miniature packs of cosmetics which found the market waiting for it, much to the chagrin of the multinationals he challenged. Examples are legion of the paradigm shift in business thinking which saw the introduction of pioneering products and services by Indian multinationals like the Tatas, Hindustan Lever, not forgetting the mobile experience in the Indian marketplace. The Indian entrepreneur has never been more grateful to the corporate messiah of the 21st century who taught him to not treat the world's underprivileged as 'victims' of economics, but to view them as consumers with discerning choice, demanding value for money. But it was not just his 'fortune' theory that drew attention to him, his vision for the manufacturing sector in India became a thought mover, which he called Manufacturing 2.0. This vision of his enabled Indian industry to take a broader view of its role in the Indian economy by introducing a phalanx of new generation goods and services. Strategy was the richer for his involvement and thought, while his 'core competencies' thinking virtually resulted in restructuring and revisiting the business plans of many Fortune 500 companies worldwide, resulting in their re-discovering of fortunes.

More than anything, Prahalad is an example of what Indian minds can do given the opportunity and space to make known their beliefs and to encourage others to believe in them, proving that humble beginnings are no bar to a truly brilliant mind from making its contribution to the world at large. Born Coimbatore Krishnarao Prahalad, CK was one of a family of 9 children of a Sanskrit scholar. Not one to be cowed by the numbers in his home, and armed with a B.Sc. degree, he soon became the Indian Institute of Management,



Ahmedabad's shining star after a short stint with Union Carbide, migrating to Harvard and back to IIM-A. His rise in stature as a management guru best represents the lack of recognition in India for the brilliance of its youth and the unholy race to own up the subject of the world's recognition as our own, because India does not recognise merit when it sees it; it only does when the testimonial comes from the wise West. This is true of so many of our greatest performing scientists, technocrats, businessmen and academics.

Even so, it is gratifying that CK Prahalad received recognition in plenty both from India and abroad and was rightly anointed the Guru who made things happen in and for business through his involvement with them as consultant and advisor, apart from his basic interest in Management academia. That Prahalad was able to generate so much interest among Indians in business is itself credit to him, because very few articulated their ideas as intensely as he did generating debate and discussion and eventual acceptance of his concepts.

The world of business is the poorer by his demise. But it will be eternally grateful to the messiah who taught them to view challenges as opportunity and believe in them.

Tapasya doffs its cap to this icon of Management who has left so much of fresh thinking and suggesting better ways to do business. We have reproduced his pathbreaking discourse on Core Competence and a selection of the tributes that many greats have paid to this modern day seer in the business world, who taught us that profit is not a dirty word after all, if only it can bring value to the customer who makes it all possible.

TRIBUTES FROM FAR AND NEAR

Here's a selection of what the masters say of the man who influenced their thinking....

“...His contribution to the field of management education has been phenomenal and has prompted several of the best Indian companies to invite him to join their board of directors and strategic think thank teams. I would go on to call him the Peter Drucker of Indian Management.”

Bala Balachandran, *Dean, Great Lakes Institute of Management, Chennai*

“CK was a teacher and scholar par excellence and worked closely with CEOs both to change the way they thought as well as to learn from them about the most pressing and salient questions worthy of further research.”

Vijay Govindarajan (VG), *an expert in strategy, also Professor, Tuck School of Business*

“He was haunted by the contrast between the rich world he inhabited and the poor world he had grown up in. This led him to veer off in a radically new direction – and to produce perhaps his most thought-provoking book. ‘The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits.’ Was a counterblast against two types of intellectual laziness : that of corporate titans who were ignoring the bulk of humanity and that of humanitarians who regarded profit as a dirty word... He taught everyone to see the developing world not as an also-ran but as a vortex of innovation and creativity. The world of management theory has more than its fair share of charlatans, but CK Prahalad was the genuine article....”

Schumpeter, *writing in The Economist.*

“He had the rarest of combinations: deep insights coupled with compassion and practical relevance. His path was not one filled with trivial academic articles but one of big ideas that moved leaders, academics and the world.”

Morten T. Hansen, *Professor in Entrepreneurship at INSEAD and also at the University of California, Berkeley*

“One of my greatest memories of C.K. in recent years was running into him in a hotel line in Mexico City, only to discover we were speaking at the same conference about the same topic of co-creation, yet did not know it! After a lovely meal – C.K. was a connoisseur of fine things,



something our Mexican sommelier learned at his peril – he decided he'd leave me to explain the basics of co-creation and would "improvise on some new stuff" instead. Of course, the improvised new stuff brought the house down. C.K. was always off to a new idea and left to the rest of us to water the seeds left behind him.

We'll miss him indeed. ””

Francis Guillard, *co-founder and president of the Experience Co-Creation Partnership (ECC Partnership), a consulting firm built to implement co-creative management processes and organizational capabilities with corporate clients around the world. He also teaches in the Executive Education program at the Ross Business School at the University of Michigan.*

““ I am stunned. C.K. Prahalad has influenced my approach to strategic change for over 20 years - beginning with the research published along with Gary Hamel in *Competing for the Future*.

While Gary Hamel is perhaps better known, and certainly a more popular speaker, I have always found the writing of C.K. to be equally insightful. In recent years, his focus on the use of innovation to serve global markets - and by doing so to serve the needs of the earth's citizens - has resonated with me and many others.

C.K. (the man) will most certainly be missed, although I sincerely hope that we are smart enough to continue the pursuit of his extraordinary ideals.

Respectfully, ””

James Ray, *VP, Global Professional Services at Elavon, Inc. and was Senior Director, Strategy & Business Development at Manheim, Vice President at Inforte Corporation, Founder and CEO at eReserve.net*

The Responsible Manager

by C.K. Prahalad

For 33 years, Prahalad ended all his MBA and executive education courses with this exhortation

The global financial crisis of the past two years has triggered an unprecedented debate about managers' roles.

While discussions about managerial performance, CEO pay, and the role of boards have been fierce, scant attention has been paid to managers' responsibilities.

For the past 33 years, I have ended all my MBA and executive education courses by sharing with participants my perspective on how they can become responsible managers. I acknowledge that they will be successful in terms of income, social status, and influence, but caution that managers must remember that they are the custodians of society's

most powerful institutions. They must therefore hold themselves to a higher standard. Managers must strive to achieve success with responsibility.

My remarks are intended to serve as a spur for people to reexamine their values before they plunge into their daily work routines. Take a minute to study them:

- Understand the importance of nonconformity. Leadership is about change, hope, and the future. Leaders have to venture into uncharted territory, so they must be able to handle intellectual solitude and ambiguity.
- Display a commitment to learning and developing yourself. Leaders must invest in themselves. If you aren't educated,

““

He was haunted by the contrast between the rich world he inhabited and the poor world he had grown up in. This led him to veer off in a radically new direction – and to produce perhaps his most thought-provoking book.

””



you can't help the uneducated; if you are sick, you can't minister to the sick; if you are poor, you can't help the poor.

- Develop the ability to put personal performance in perspective. Over a long career, you will experience both success and failure. Humility in success and courage in failure are hallmarks of a good leader.
- Be ready to invest in developing other people. Be unstinting in helping your colleagues realize their full potential.

Learn to relate to those who are less fortunate. Good leaders are inclusive, even though that isn't easy. Most societies have dealt with differences by avoiding or eliminating them; few assimilate those who aren't like them.

- Be concerned about due process. People seek fairness—not favors. They want to be heard. They often don't even mind if decisions don't go their way as long as the process

is fair and transparent.

- Realize the importance of loyalty to organization, profession, community, society, and, above all, family. Most of our achievements would be impossible without our families' support.

- Assume responsibility for outcomes as well as for the processes and people you work with. How you achieve results will shape the kind of person you become.

- Remember that you are part of a very privileged few. That's your strength, but it's also a cross you carry. Balance achievement with compassion and learning with understanding.
- Expect to be judged by what you do and how well you do it—not by what you say you want to do. However, the bias toward action must be balanced by empathy and caring for other people.
- Be conscious of the part you play. Be concerned about the problems of the poor and the disabled, accept human weaknesses, laugh at yourself—and avoid the temptation to play God. Leadership is about self-awareness, recognizing your failings, and developing modesty, humility, and humanity.

Every year, I revisit my notes about the responsible manager, which I first jotted down in 1977. The world has changed a lot since then, but I haven't found it necessary to change a word of my lecture. Indeed, the message is more relevant today than ever.

(with grateful acknowledgements to the Harvard Business Review)

“

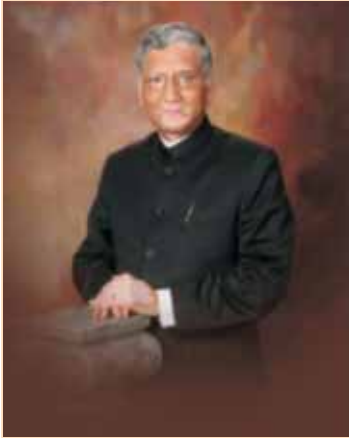
Leadership is about self-awareness, recognizing your failings, and developing modesty, humility, and humanity.

”



This column focuses on and profiles individuals who, through the power of their hard work and the force of their personality have become success stories and have created a niche for themselves in society.

Profiling *Mr. C. A. Allen Pereira,* *Chairman and Managing Director,* *Bank of Maharashtra*



As one enters the sanctum sanctorum of the Chairman's office on the 2nd floor at Lokmangal, Bank of Maharashtra's Head Office in Pune, one cannot escape the feeling that we are in the presence of one of the most functional, yet unassuming Chief Executives who does not mistake verbosity for intellectual content, yet approachable to all who matter. And for an organization in the Service sector, this is a quality that makes for half the marketing success. His demeanour is of one who can match any intellectual in a war of words on Banking, yet ever willing and eager to hear out the other side's views on aspects that cover the Bank's all round performance in his tenure. And it is more than justified if the figures he puts before you are anything to go by. In a free wheeling interview with the Editor, Mr Pereira speaks of the Bank's achievements in its platinum year when it clocked some of the business parameters coveted by every performing bank today.

In conversation with P. G. Vijairaghavan

Mr. C. A. ALLEN PEREIRA is a professional HR executive, who joined Syndicate Bank as a banking officer in 1973. He has made a definite contribution to the banking sector in various capacities since then. Besides, four years as Advisor for Personnel and Industrial Relations at the Indian Banks' Association – the body representing 170 Private, Public and Foreign Banks in India, has ensured that he stands out as a specialist in Banking related HR. He was instrumental in influencing a fresh look at HR development in PSBs leading to the formation of the Committee of CEOs to recommend a revised HRM policy and areas of autonomy for the public sector banks. This led to the Government of India accepting almost all recommendations of the Committee and initiating the Voluntary Retirement Scheme in 2000 for Bank employees. He has also been credited with the holding of the first Bank Olympiad for employees in Banking industry in 2002. Prior to his current posting, Mr Pereira was Executive Director, Oriental Bank of Commerce.



It is the Bank's Platinum Jubilee Year and it is a compliment to you that Bank of Maharashtra, under your leadership, has crossed a number of milestones - business of Rs 100,000 cr., conversion of 100% of your 1453 Branches to CBS, launching of mobile and internet banking services, etc. Have your goals for the Bank during your tenure been largely fulfilled? What would you say are the goals for the remainder of your term?

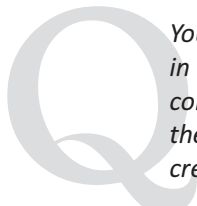
The year 2009-10 has been a successful year in the backdrop of a difficult period for the banking sector. We have achieved impressive business growth and have crossed the milestone of Rs. One lakh crore business. All our branches were rolled out to Core Banking Solution and thus we joined the league of banks with 100% CBS.

We are leveraging technology to give state-of-the-art service, to all classes of customers – pensioners, farmers, corporate, retail customers and borrowers; with this

milestone, we have been catapulted into the league of the big banks, very few banks have this level of CBS connectivity, with complete techno connectivity and least of hassles. The most remote rural branches are connected sometimes through V-SAT connectivity, although power supply is an issue we are exploring ways of using solar energy to power our customer service. We

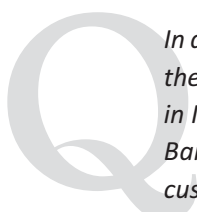


are also planning to use renewable energy as much as possible. The result of this technology use is reflected in our business through hassle-free receipt of funds from Government and disbursements to customers and beneficiaries, and use of ATMs by rural customers too etc. Plus we are reaching out to the younger generation, particularly the rural areas in a big way.



You have piloted the Bank during the time of the worst economic crisis in the country, indeed the world, in recent times. What was the main concern as you worked toward keeping the boat on even keel during these trying days – e.g. was it the worrisome NPAs, falling demand for credit, interest rate structure, etc. ?

It is true that, the slippages in credit portfolio especially in Retail, Real Estate, Export, Agriculture, SME and Manufacturing, falling demand for credit, challenging interest rate structures were major areas of concern. We have addressed these concerns by re-skilling key personnel as well as enhancing the pool of key personnel for qualitative credit appraisal, post disbursement monitoring and timely restructuring of accounts in case of bonafide need. We recruited 200 young agriculture graduates and MBAs to take up the work of facilitation of credit and recovery and educating the rural folk in newer methods of farming, which has worked wonderfully well.. Recoveries and arresting slippages was a priority. Engineering graduates recruited were utilised for our financing of SMEs, etc. This new recruitment policy has paid good dividends to the Bank by way of better interface with farmers and entrepreneurs. We retrained the key personnel in servicing specific sectors, etc. like dryland farming, water conservation etc. They also do handholding for units having difficulty, by



In an age when free enterprise is considered to be the Gospel for growth, the fact is that Public Sector Banks have created a niche for themselves in India today. What according to you would set apart the Public Sector Banking industry from the private banks in the country, in terms of customer value?

Public Sector Banks are customer oriented rather than transaction oriented.

We have largely achieved the targets set in the Corporate Plan for the year 2009-10 and we are continuing with the tasks of strengthening the Bank with skills development, improved earnings, improved quality of assets and enhanced customer satisfaction. I believe that excellence is a never ending search to make life easier and richer for those we serve and we will continue this search from year to year....

helping them in export financing, rules and regulation, accounting, etc. New start ups were offered very attractive rates. We did not have much of a problem with the real estate sector. So by arresting slippages and improving credit growth qualitatively we managed to improve our business. We introduced 3 specific hubs for housing finance in Pune, Bombay and Delhi. Our 3 way approach was to control slippages, improve credit growth and recovery and retrain our personnel. All this has helped us in making a giant leap in our business this year. Coupled with action to reduce high cost deposits, our cost of funds and returns improved substantially.

Our branches launched vigorous recovery drive in case of NPAs by offering One Time Settlement to borrowers whose enterprise lacked economic viability / prospects for growth. In case of willful default, the legal provisions were invoked to recover dues by sale of assets.

The pressure on margins due to subdued demand for credit and demand for credit at lower rates of interest, was mitigated by focusing on CASA growth, particularly savings deposits growth simultaneously with shedding high cost deposits. While high cost deposits declined by over 27% as at March 31, 2010, the savings deposits have registered about 26% growth over March 2009 and savings and current account deposits together have registered about 24% growth YoY.

Their business plans and schemes are increasingly focusing on customer need fulfillment and not merely on earnings



from the account. The hallmark of Public Sector Banks is long term customer relationship, transparency and reliability. Many of them like, Bank of Maharashtra, can boast of large number of relationships spanning three to four generations. Today, almost all PSBs and particularly Bank of Maharashtra are offering products and services for customers of all age groups and across all economic segments. Financial Inclusion and niche banking go hand in hand.

The Bank has successfully introduced products like, Internet Banking, Mobile Banking, Maha e-Trade for those

who trade in capital market, etc. besides Debit and Credit Cards, e-Payment of Central Taxes and payment of utilities.

The fact remains that the opening up of Banking sector to private sector has helped in creating a healthy competitive atmosphere, made the employees aware of the importance of customer relationship and spurred the PSBs to great heights of service, which has stood them in good stead.

Q The regulatory mechanism in India has been acclaimed for its management of the financial system in the light of the recent financial crisis in the developed world, particularly the US. Reckless business growth led to banks and other entities folding up, but India has seen through the recession with admirable ease. Do you see this as a pointer on the desirability of the mixed economy vis-à-vis the free economy?

There are advantages as well as disadvantages in any form of economy. Our mixed economy has survived the adverse effects of the recent financial turmoil not because of its form but because of strong regulatory frame work, prompt corrective actions by the Regulator, the Government, banks and various developmental organizations with positive approach and with strong determination.

Strong norms in derivatives, lending to sectors, prudential requirements for the banking industry by the regulatory agencies and the early diagnosis of the problem by the Government and the Reserve Bank helped in keeping our losses to the lowest.. and enabled quick recovery from the effects of the recession.

Q The proposal for withdrawal of stimulus to sectors facing recession has received mixed response....Do you think it would be proper to withdraw the same at this point in time.

The concern of the regulatory agencies is the surplus liquidity in the market, leading to inflationary pressures on the economy and to reduce the concession. Balancing economic growth with controlled inflation is the immediate concern. Price rise owing to inflation is an area of concern.

One way to ensure the balance is not upset, is by keeping the stimulus alive in areas which are not subject to the inflationary pressures, and selectively and gradually withdrawing the economic stimulus in other areas.

Q Inspite of the growth of branch network consequent upon nationalization of Banks in 1969, large parts of India are still unbanked. Tremendous opportunities exist in the rural markets for not only banking but related and allied businesses which many banks are looking at – for instance, bancassurance, mutual funds, Besides, the business environment in the entire country is changing with introduction of technology and use of better communication methods, etc. How is Bank of Maharashtra planning to exploit this growing market?

An interesting question and relevant too. At the time of nationalization of Banks in 1969, the average population served by a bank branch was around 65,000. Since then the coverage has improved to 10,000 population per bank

branch and is bound to improve still further under the Financial Inclusion initiatives. There are about 6,40,000 villages in India and Public Sector Banks have 32,000 rural



branches. So there is a large gap to be filled. A recent survey has indicated that in Maharashtra there are nearly 4,350 unbanked villages. As a Convener of State Level Bankers' Committee, the Bank is coordinating with Scheduled Commercial Banks having branch network in Maharashtra to extend banking services to all the unbanked villages where population is more than 2,000, by 2011. Bank of Maharashtra will be focusing on 860 villages in Maharashtra and another 355 villages in other states for extending banking services/ financial inclusion by 2013. Through this

initiative, the bank will reach out to about 3,00,000 rural households. Besides brick and mortar branches, the bank will endeavour to utilize Information Communication Technology (ICT) such as Mobile Banking, Correspondence Banking and Business Facilitators to achieve the financial inclusion.

The bank has also adopted 75 backward villages, 51 in Maharashtra and remaining 24 in 5 other States for integrated and total development. Focus is on improving health and hygiene, literacy level, empowerment of women through SHGs, management of water resources for drinking as well as irrigation, improving economic condition of villagers through improved agricultural practices and self employment among rural youth.

Q In spite of the wide network of branches, Bank of Maharashtra is yet perceived as a Regional Bank. Infact, going by the branch statistics it still has a network predominantly based in Western India and its presence is yet to be felt in many parts of India. Is the Bank making any concerted decision to spread its wings to other less represented States?

Any Bank with a base in a particular Region is naturally bound to have a concentration of Branches in the Region, which is true of Bank of Maharashtra too. But in the last few years, we have outgrown our reach to most States of India and have now truly become a National Bank in the real sense.

Bank of Maharashtra is no more a Regional Bank. It is already a Pan India bank

with branches in 21 states and 2 Union Territories besides Maharashtra. Present branch network consists of 1,453 branches and 375 ATMs. In the current financial year 2010-11, the bank would cross branch network of 1500 branches and will also be adding 75 new ATMs. During this financial year, in all probability before September 2010, the bank will be having branches in Meghalaya, Sikkim and Arunachal Pradesh besides 2 more additional branches in Assam. By then, the bank would have established itself in 25 states and 2 Union Territories of the country.

Q Today, the size of a Bank and its influence is calibrated not only by its business turnover, but also by its global presence. Would you say that one of the reasons for BoM being perceived as a small-town bank is its restricting itself to a few States in India, and also for not having a global vision. Have you considered correcting this view by taking Bank of Maharashtra abroad?

As mentioned earlier, the bank is no more a small town bank. Having established itself in 25 states and 2 Union Territories in India, including North East. And yes, the

bank seriously looks to a foothold overseas, in about 2 years' time and we will be taking a decision and the process of identifying the possible centres is on....

Q The Basel II norms for the banking industry are now accepted by India. Bank of Maharashtra is already ahead in terms of capital adequacy required with 12.5%. What about the other risk management architecture under pillar 2, that is to ensure adequate supervision, required to be in place for compliance with the norms on an ongoing basis?

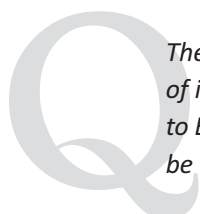


The bank has put in place Internal Capital Adequacy Assessment Process (ICAAP) document which addresses all the pillar 2 risks faced by the bank such as credit concentration risk, liquidity risk, interest rate risk, reputation risk, strategic risk, pension obligation risk, settlement risk and model risk. The Interest Rate Risk on Banking Book (IRRBB) is measured by the bank on quarterly basis as per the methodology prescribed by RBI. The IRRBB measured as drop in equity value, has been below the prescribed limit of 20% in all the 4 quarters beginning 31st March 2009 when the bank migrated to Basel II, after subjecting the bank's equity to a shock of 200 basis points interest rate risk. This has been put on the bank's website as a disclosure item under Basel II for the period 31.3.2009 and 30.9.2009 as

per RBI guidelines.

ICAAP is reviewed and validated by an internal committee constituted for this purpose and the same is reported to the Board. Now the assignment of review and validation of ICAAP has been entrusted to an external independent expert who has necessary expertise in quantifying all the pillar 2 risks mentioned above as further enhancement.

The bank has been reviewing all the pillar 2 risks on an ongoing basis every quarter and the same is supervised by the Risk Management Committee of the Board.



The Reserve Bank has given considerable leeway to Banks in the matter of interest rate through the introduction of the Base Rate, as compared to BPLR. Do you feel this could affect Banks' profitability or that it would be a win-win situation for both the Bank and the customer?

In the BPLR scenario, banks were giving sizable credit at sub-BPLR. This was mainly due to surplus liquidity, lower demand for credit and lower risk appetite with corporates for business expansion. Now, the scenario is changing. The mechanism is intended to curb unhealthy interest rate wars

by under-quoting, and promote a cost plus interest rate scenario. In my considered view, it should be a win-win situation for borrower as well as the Bank and set in motion a more healthy and transparent trend.



What are the CSR initiatives undertaken by the Bank?

Educating farmers in better management of their lives, community development, freeing them from moneylenders etc. has been our mission.

As I mentioned earlier, we have adopted 75 villages, for composite development – form their own village development councils with involvements of politicians, but with panchanay leadership's involvement, for specific purposes like improving, health, hygiene, water resources, etc. We have already held health camps, provided monthly health checkups, tie up with State Government for schemes for nutritious food etc., better sanitary practices, helped BPL families to improve environmentally effective

housing with modern toilets with possibilities of converting human waste into productive materials for use in their daily lives through modern processing practices. We have not involved any specific NGOs for this, but the local teams and panchayats are the partners in this activity. Of course, we have already partnered with the NGO floated by Anna Hazare in Ralegan Siddhi where we have provided workshops to rural folk from all the identified villages to understand the results of the effort by Anna Hazare for implementation in their areas.

Law of the Alibi: If you tell the boss you were late for work because you had a flat tire, the very next morning you will have a flat tire.

- Author Unknown

BIOTECHNOLOGY SURGES, PHARMA RENEWS ITSELF, THRIVES...

The Indian pharmaceutical industry which bears the responsibility for keeping India hale and healthy, has for years had a history of alternating near sickness and health, most of it not of its own making but of the perceived priorities of the Centre! If it was not the Drug Prices, it was the Research, if not it would be the ethics of clinical research in the country, or the patent regime that made the industry feel the heat for a long time. But the scene seems to have cleared somewhat in the last few years with the change in the patent laws which made the production and marketing of drugs a lot simpler vis a vis the foreign drugs. Up until the 90s the Indian pharma industry was a part of the secondary business sector in India with Government being a major player in terms of investment and operations. The changes in patent laws made a vast difference to the fortunes of Indian players who quickly saw the opportunity for taking on the multinationals in India, who now found it hard to take on the home grown entities.

The distinction between branded drugs and generic drugs has become marked as a result and as a direct fallout, generic drugs (which do not carry the brand name of the manufacturer), have come to cost a lot less without any real loss of efficacy of the drug per se. This has given a competitive edge to Indian manufacturers who have over the past few years proved equal to the task of maintaining quality, availability and price of the drugs for the ever expanding Indian market. Exports of drugs has become an integral part of the business model

of the pharma industry. However, this is not without its own set of problems with foreign buyers such as patent intricacies, multiple regulatory requirements and expiry hurdles.

The clarity of scene brought about by the new patent regime was a prerequisite for the industry to take a view on its future growth strategy. In some ways, this has acted as the catalyst for the entire sector leading to runaway development rarely noticed in the country so far. If a FICCI report is any indication, the industry is set for an impressive 9.5 % growth between 2010-15, and is worth Rs 100,116 crore today. Helping this growth is the unfortunate rise in many diseases in the country and the addition of newer versions of existing ailments, and fresh discoveries of viruses and strains that add to the deteriorating health of the nation. This has entailed more sub-continent specific research on ailments typical to South Asia. While the nation has been able to control certain highly life threatening diseases like typhoid, cholera, smallpox, etc. we are yet to come to terms with certain stubborn forms of viral and bacterial ailments that threaten the nation's bid to become an international player of some stature.

Internationally too, Indian pharma has made its presence felt, with more visibility for Indian contract research companies to outsource operations from the costlier West. Exports, increased 25 per cent in 2008-09. "Exports of pharmaceuticals have consistently outstripped imports," the Economic Survey, 2009 said.

India exports drug, intermediaries, active pharmaceutical ingredients, finished dosage formulations, bio-pharmaceuticals and clinical services. The top five destinations for such exports are USA, Germany, Russia, UK and China.

PHARMA QUICK TAKES

- The pharma industry generally grows at about 1.5-1.6 times the Gross Domestic Product growth
- Globally, India ranks third in terms of manufacturing pharma products by volume
- The Indian pharmaceutical industry is expected

to grow at a rate of 9.9 % till 2010 and after that 9.5 % till 2015

- In 2007-08, India exported drugs worth US\$7.2 billion to the US and Europe followed by Central and Eastern Europe, Africa and Latin America
- The Indian vaccine market which was worth US\$665 million in 2007-08 is growing at a rate of more than 20%
- The retail pharmaceutical market in India is expected to cross US\$ 12-13 billion by 2012
- The Indian drug and pharmaceuticals segment received foreign direct investment to the tune of US\$ 1.43 billion from April 2000 to December 2008

CHALLENGES

Every industry has its own sets of advantages and disadvantages under which they have to work; the pharmaceutical industry is no exception to this. Some of the challenges the industry faces are:

- Regulatory obstacles
- Lack of proper infrastructure
- Lack of qualified professionals
- Expensive research equipment
- Lack of academic collaboration
- Underdeveloped molecular discovery program
- Divide between the industry and study curriculum

BIOTECHNOLOGY

While pharma is a traditional industry in terms of years of existence, biotechnology is internationally, a relatively recent entrant as a science and industry. And India has been quick to catch on to the tremendous possibilities in terms of medical research for the welfare of its citizens and as a commercial value proposition. By its very nature, most companies in the sector are start ups and are quickly integrating themselves with the know hows internationally and with their own research capabilities, which are acknowledged worldwide. Some companies like Biocon have already made their presence felt as global pioneers in research and many pharma companies have followed in stepping up research in high value discoveries for medical application in severe diseases, which translates into value for business. The fact that the Indian biotech sector is USD 2.5 bn strong today, and is registering a blazing 40% CAGR is enough indication of the value that is locked in this activity.. Finance for the start ups is still a cause for anxiety and venture funds have to show greater interest in case the industry is to take the high ground and dominate the world scene, because talent is no issue in the Indian context. Education and industry have to play a greater part in

integrating entrepreneurship, finance and academics and a more coordinated effort from the two prime players in organizing the industry, will be required to launch the sector into world dominance.

Biotechnology is a highly capital intensive and risk prone industry and many Indian entities find themselves at the rough end of the stick when it comes to finance. There is need for greater assistance to the industry by government in terms of tax and other incentives and from venture funds for financing their activities. Besides, the enormous risks of failure in developing new products can discourage entrepreneurs from taking up challenging research, which carry both commercial and social value.

CHALLENGES

Industry watchers are uniform in listing the challenges posed to this sector such as new product development, penetration of sophisticated markets and underwriting of risk in new product development. Most are outlined above. However, a highly sophisticated industry cannot take off into the realm of world dominance without substantial domestic support from all concerned, financial, infrastructure, academic and regulatory.

This issue makes an attempt to scratch the surface of the pharma and biotech industry's nature and the problems faced by them. As always, some of the best practitioners of the sector have taken time to contribute their views and knowledge into the making of this issue. We trust readers will be encouraged to make a deeper study of the subject to ensure greater awareness of the intricacies that govern the present and potential of the industry in India.

Information used in the production of this issue has been accessed from various sources.



No medicine can be introduced into the market, unless it is proved safe and effective in controlled studies. These studies are conducted on animals in the preclinical phase and on humans in the clinical phase. Studies conducted on humans are usually called clinical trials. Clinical trials are only a small part of the research that goes into developing a new treatment. Yet, these take up a major amount of time and cost in a drug development programme.

Clinical trials are conducted to collect safety and efficacy data for new drugs or devices. These trials can only take place once satisfactory information has been gathered on the product through animal studies and Regulatory Authority/Ethics Committee approval is granted in the country where the trial is taking place.

Potential drugs, first have to be discovered, purified, characterized and tested in labs (in cell and animal studies) before ever undergoing clinical trials. In all, about 1,000 potential drugs are tested before just one reaches the point of being tested in a clinical trial. New drugs, on average, require at least 12 years of research behind them before they even make it to the market. The major holdup in marketing new drugs is the time it takes to complete clinical trials.

Depending on the type of product and the stage of its development, investigators enroll healthy volunteers and/or patients into small pilot studies initially, followed by large scale studies in patients that often compare the new product with the currently prescribed treatment. As positive safety and efficacy data are gathered, the number of patients is typically increased. Clinical trials can vary in size from a few hundred patients in one country to thousands of patients in multi-center trials in multiple countries.

Due to the sizable cost a full series of clinical trials may incur, the burden of paying

Clinical Research in India

Dr Ghooi RB and Kalra Ekta
Bilcare Research Academy, Pune



Dr. R. B. Ghooi

Dr. Ghooi is a pharmacologist with over 37 years experience in research and pharmaceutical industry. He holds a master's degree in Pharmacology from Karnataka University and a Ph. D in Medicine, from Bombay University. Additionally he has been an overseas fellow at Max Planck Institute in Germany. Dr. Ghooi has published over 40 papers in journals of repute and has contributed chapters in three books to date. He is presently the Dean of Bilcare Research Academy in Pune.



Ms. Ekta Kalra

Ekta Kalra is a microbiologist with a master's degree from Bombay University. She also holds a Post Graduate Diploma in Clinical Research, Patents and Regulatory Affairs and an Advanced Diploma in Biotechnology. She has experience in Clinical Data Management with a leading CDM services provider. She also has teaching experience at graduate and post graduate level.



for all the necessary people and services is usually borne by the sponsor who may be the pharmaceutical or biotechnology company that developed the agent under study. Since the diversity of roles may exceed resources of the sponsor, often a clinical trial is managed by an outsourced partner such as a Contract Research Organization (CRO).

“

If the drug successfully passes through Phases I, II, and III, it will usually be approved by the national regulatory authority for use in the general population. Phase IV are 'post-approval' studies.

”

Currently, most clinical trial programs follow ICH guidelines (first developed by the US, European Union and Japan), aimed at "ensuring that good quality, safe and effective medicines are developed and registered in the most efficient and cost-effective manner. These standard guidelines are pursued in the interest of the consumer and public health, to prevent unnecessary duplication of research and maintain the cost of drug development at a reasonable level.

Clinical trials involving new drugs are commonly classified into four phases. Each phase of the drug approval process is treated as a separate clinical trial. The drug-development process will normally proceed through all four phases over many years. If the drug successfully passes through Phases I, II, and III, it will usually be approved by the national regulatory authority for use in the general population. Phase IV are 'post-approval' studies.

The biggest barrier to completing studies is the shortage of people who take part. All drug and many device trials target a subset of the population, meaning not everyone can participate. Local intelligence of CROs generally helps sponsors to locate the right investigator and patients for their trial.

Generally CROs are contracted by sponsors to perform all the administrative work on a clinical trial. While it is commonly known as a research organization, it does not perform any research, but oversees the study of the drug at a hospital site. Its functions include (but are not limited to) the following

- recruits participating physicians and surgeons (also

called investigators),

- trains physicians and surgeons and their subordinate staff,
- provides them with supplies (such as study drugs, documents, forms for collating data),
- coordinates study administration and data collection,
- sets up meetings between various stake holders,
- monitors the sites for compliance with the clinical protocol, and
- ensures that the sponsor receives 'clean' data from every site.

Recently, Site Management Organizations (SMO) have also been involved to coordinate with the CRO to ensure rapid approvals at the site and faster site initiation and patient recruitment. SMOs are yet another CRO like organizations which work only with the sites and are not connected with any other research activities,

At a participating site, one or more research assistants (often called Clinical Research Coordinators or CRC) do most of the work in conducting the clinical trial. The research assistant's job can include some or all of the following:

- providing the local Institutional Review Board (IRB) with the documentation necessary to obtain its permission to conduct the study,
- assisting with study start-up, identifying eligible patients, obtaining consent from them or their families,
- administering study treatment(s),
- collecting and maintaining data files, and
- communicating with the IRB, as well as the sponsor (if any) and CRO (if any).



The cost of a study depends on many factors, especially the number of sites that are conducting the study, the number of patients required and whether the study treatment is already approved for medical use. Clinical trials follow a standardized process.

The costs to a pharmaceutical company of administering a clinical trial may include, among others:

- manufacturing the drug(s)/device(s) tested
- staff salaries for the designers and administrators of the trial
- payments to the Contract Research Organization, the site management organization (if used) and any outside consultants
- payments to local researchers (and their staffs)
- study materials and shipping
- communication with the local researchers, including onsite monitoring by the CRO
- one or more investigator training meetings
- costs incurred by the local researchers such as pharmacy fees, IRB fees and postage.
- any payments to patients enrolled in the trial

The overall cost of developing a new drug has been estimated at US\$ 1200 million. While there is unanimity that these cost estimates are padded, there is no agreement on how much padding is done. Reality checks show that each trial coming to India could cost between Rs. 4 to 40 crores.

The pharmaceutical Industry, the world over has begun to realize that outsourcing of clinical trials to countries like India and

China is advantageous. The following points make India (and China) attractive destinations for clinical research:

- India has the largest pool of patients suffering from cancer, diabetes and other maladies
- The country offers nearly 700,000 speciality hospital beds, 221 medical colleges and skilled English-speaking medical personnel.
- India has a large contingent of highly educated and trained medical specialists, many of them trained in US and UK.

The biggest advantage of outsourcing to India is the low cost of all elements of clinical research. For instance, trials for a standard drug in the United States can cost about \$150 million. A similar drug could be tested in India with a 60 per cent reduction of that whopping cost.

Clinical research has been going on in our county in a desultory way, but in the last ten years, it has taken an upward swing. The increase in the number of trials being done over the last 18 months shows a phenomenal rise. The table below shows how trials have increased in India over the period.

Period	Number of trials	% growth (annualized)
Dec 2007	645	
June 2008	802	48%
November 2008	922	35%
April 2009	1086	42%
November 2009	1278	35%

-Data from NIH (US)

“Clinical research has been going on in our county in a desultory way, but in the last ten years, it has taken an upward swing. The increase in the number of trials being done over the last 18 months shows a phenomenal rise.”



Almost all the top names in the pharmaceutical world have zeroed-in on India, setting up clinical trial facilities in major cities, leading the country to an altogether different destination: the global hub of outsourcing of clinical trials.

Global consultants McKinsey & Co estimated that by 2010, global pharmaceutical majors would spend around \$1-1.5 billion just for drug trials in India. They predicted that clinical research would grow to \$200 million by 2007 and anywhere between \$500 million and \$1 billion by 2010. They also predicted that India would do between 1500 to 2000 trials in 2010.

Many scoffed at this prediction, yet hard facts reveal that the clinical research business in 2007 reached US\$ 360 million, and annual growth rate was around 40 %. A simple calculation shows that at a growth rate of 40% we can earn US\$ 980 million in 2010 (not much off the predicted mark of \$1 billion!)

The National Institutes of Health (US) site shows that as of 5th April 2010, the number of trials going on in India is 1416, and this number is growing at 42 % annually. Again, next year one can expect around 1600 trials in India against the 1500-2000 predicted by McKinsey.

Stumbling Blocks in Clinical Research

Government initiatives on clinical research have given a fillip to this activity. The long awaited amendment to the Schedule Y came in 2005. The liberalization of imports for clinical research and the waiver on service tax is a welcome change, but many more initiatives are awaited.

Though many changes in the Drugs and Cosmetics rules have been talked about, nothing of importance has happened in the last 5 years. Suggestions from the industry regarding timelines for approval are still pending. There is yet hope that strengthening of the DCGI's office will lead to faster review of applications and grant of permission.

Some contentious issues remain - registration of Contract Research Organizations and Institutional Review Boards are among them. It is hoped that proactive steps by the government will speed up trials in India.

Education in clinical research began in India in 2004, from a single institute awarding a degree. Of late, there has been a mushrooming of self-styled clinical research training institutes and it becomes really difficult to select an optimal clinical research training programme/Institute at times.

For these reasons it is important to consider the following points while selecting a clinical research training programme as well as the institute:-

1. Reliability of the training program/ Institute in terms of years of existence, quality of training and relevant industry experience of the core faculty.
2. Duration of the programme and its credibility.
3. Number of participants who have successfully completed the training programme and got employed in the clinical research industry.

With large patient pool, qualified man power, growth in Indian biotechnology industry and India's proven track record in Information technology and business process outsourcing makes it a prime destination for Clinical Research outsourcing.

India's clinical research landscape is in the process of glorious metamorphosis providing a rapidly transforming healthcare market with a promising future in the clinical research arena.

If a train station is where the train stops, what's a workstation?

- Author Unknown



Introduction

Healthy dietary practices from ancient oriental populations originated the concept of functional foods, which enhance body functions and help prevent or even cure dysfunctions and diseases. The influence of Oriental and Mediterranean diets (rich in fruits, vegetables and grains) on cancer and cardiovascular disease morbidity and mortality is remarkable, since those nations present lower total and cardiovascular mortality rates in comparison to the United States, besides their higher per-capita intake of alcohol. Based on ancient ethnopharmacological knowledge, German physicians usually prescribe herbal medicines to treat common diseases. Japan, China, South Korea and India are leaders in functional food and herbal use and research. In Mediterranean nations, such as Greece, Italy, France, Spain and Portugal, nutritional traditions have been associated with healthy living and aging.

The human race has seen the enormous growth in terms of developmental changes ranging from stone age to the industrial age to the highly evolved techno-age. The quality of life in terms of income, spending and lifestyle has improved with economic development. However, it has also thrown up a major challenge in the form of 'lifestyle diseases'. The first victim of this lifestyle change has been food habits. Consumption of junk food has increased manifold, which has led to a number of diseases related to nutritional deficiencies. Nutraceuticals can play an important role in controlling them. Today an ever expanding body of medical and scientific evidence documents the importance of proper diet and benefits of nutritional supplements for health maintenance and prevention of disease. This growing mass of information has created a demand for proven effective

Nutraceuticals: Nature's way to nurture

Madhvi Joshi,
Sector Specialist (Pharma & Healthcare),
Gujarat State Biotechnology Mission,
Govt. of Gujarat



Madhvi Joshi is a post graduate gold medalist in Microbiology from Saurashtra University, Rajkot. After a couple of years of experience teaching the subject, she joined the GSTBM in Ahmedabad to provide new direction to the biotechnology mission of the State Government. Her responsibilities include infrastructure, development, policy support, Research and Development, Human Resource Management and awareness generation in Pharma and Healthcare sector with emphasis on Biotechnology. She is also ex-officio Joint Director, Gujarat Diagnostic Centre and Co-ordinator in Shivarth Centre for Excellence in Clinical Research



natural food supplements.

The next era of nutrition will focus on natural occurring properties provided from plants, fruits, and vegetables which support good health. A number of nutraceuticals are available in the market that include antioxidants, probiotics, prebiotics, omega-3 fatty acids and dietary fibers. Nutraceutical, a term combining the words “nutrition” and “pharmaceutical,” is a food or food product that provides health and medical benefits, including the prevention and treatment of disease. Such products may range from isolated nutrients, dietary supplements and specific diets to genetically engineered foods, herbal products, and processed foods such as cereals, soups, and beverages.

The interest in nutraceuticals and functional foods continues to grow, powered by progressive research efforts to identify properties and potential applications of nutraceutical substances and coupled with public interest and consumer demand. The principal reasons for the growth of functional food market are current population and health trends. Across the globe, populations are aging. Life expectancy continues to rise, as does the contribution made by older individuals to the total population. Also, obesity is now recognized as a global issue as its incidence continues

to climb in countries throughout the world. In the U.S., approximately 62% of the adult population is classified as overweight (based on body mass index (BMI)) and more than half of those adults are classified as obese. Heart disease continues to be a primary cause of death, responsible for 32% of deaths in the U.S., and cancer, osteoporosis, and arthritis remain highly prevalent. As of this writing, the International Obesity Task Force reports that the incidence of obesity in the majority of European countries has increased by 10 to 50% in the last 10 years. People can optimize the health-promoting capabilities of their diet by way of supplementation and by consuming foods that have been formulated or fortified to include health-promoting factors. Another reason for the growing trend in functional foods is public education. People today are more nutrition-savvy than ever before, their interest in health-related information being met by many courses of information.

Table 1 : Major Nutraceutical ingredients

Type of ingredient	Ingredient key		Use	Commercial application
Antioxidants	Including:		<ul style="list-style-type: none"> • Protection from cancer, heart disease and neural tube defects • Lycopene may help male infertility 	<ul style="list-style-type: none"> • Supplementation
Nutritional lipids and oils/poly unsaturated fatty acids (PUFAS)	Omega-3 fatty acids	Eicosapentanoic acid (EPA)	<ul style="list-style-type: none"> • Healthier heart and circulation • Fights depression • Fights inflammatory diseases • Aids brain and eye function • Helps maintain normal blood pressure and control cholesterol • Found primarily in cold-water fish • EPA is found in Green Lipped Mussels 	<ul style="list-style-type: none"> • Fortification, supplements (esp. dairy). • Omega Protein Corp markets heart-healthy fish oil containing Omega-3 fatty acids for use in mainstream consumer foods. • OmegaTech launched DHA Gold Circle Farm Eggs (1996). • Good for pregnant women, used synergistically with folic acid in bread.
		Alpha-linolenic acid (ALA)	<ul style="list-style-type: none"> • An Omega-3 fatty acid not found in fish, but primarily in dark green leafy vegetables, flaxseed oils, and certain vegetable oils. The body's enzymes convert ALA to EPA. Protects against heart and vessel disease, lowers cholesterol and triglyceride levels. 	<ul style="list-style-type: none"> • Fortification and supplements.



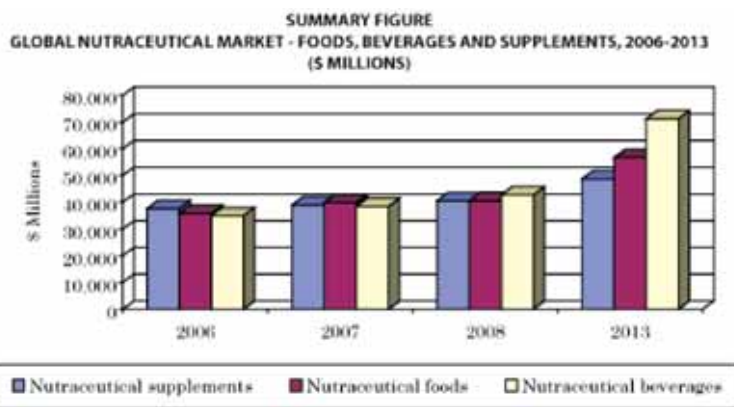
Type of ingredient	Ingredient key		Use	Commercial application
	Omega-6 fatty acids	Gamma linolenic acid (GLA)	<ul style="list-style-type: none"> • Body converts linoleic acid to GLA then to hormone-like substance called prostaglandin. • Aids rheumatoid arthritis, PMS, endometriosis, and fibrocystic breasts; • Controls eczema and psoriasis; • Clears acne and rosacea; and • Prevents/improves diabetic neuropathy. • Omega-6 fatty acids are found in grains, most plant-based oils, poultry and eggs. 	<ul style="list-style-type: none"> • Fortification and supplements. • Standard treatment for premenstrual symptoms.
		Conjugated linoleic acid (CLA)	Antioxidant found in beef and dairy product. Aids weight control, positive effect on LDL cholesterol.	Supplements.
		Linoleic acid (LA)	As GLA above.	Fortification and supplements.
		Arachidonic acid (ARA)	Reduces risk of coronary heart disease.	Fortification – baby formula.
	Omega-9 fatty acids	Oleic acid	Main fatty acid in olive oil; significantly reduces LDL cholesterol.	Fortification – baby formula.
Phytochemicals / Phytonutritionals	Carotenoids	Lycopene Betacarotene Lutein	Lycopene may cure degenerative diseases and slow the ageing process, and ensure prostate health. Certain carotenoids, such as those found in dark green leafy vegetables, may decrease the risk of developing advanced or exudative AMD, the most visually disabling form of macular degeneration in old people.	Present in foods such as tomatoes.
	Polyphenols	(Bio) flavanoids, e.g. Anthocyanins, proanthocyanins (tannins), isoflavones, catechins, quercetin	Reduces cancer, cardiovascular disease, and osteoporosis, Antioxidant, Antibacterial, Antiviral, Anti-inflammatory; and Anti-allergenic.	present in a wide variety of foods, including green and black tea, wine, soy, cocoa, nuts, seeds and whole grain cereals.

Broad term of nutraceuticals is mainly divided into dietary supplements, functional foods, medical foods and pharmaceuticals. Today thousands of nutraceuticals are available in the market worldwide and many more will be approaching soon. Today the Nutraceutical Industry has become a highly respected industry for supplement health. It accounts for 6% of the total food industry. Nutraceuticals are gaining acceptance for their ability to address several diseases. Vitamins, minerals and nutrients constitute about 85 % of the market while antioxidants and anti-ageing molecules account for 10 % other segments such as herbal extracts occupy 5 % of the market, globally.



Nutraceuticals Market: Global and National perspective

The global market for nutraceutical products has increased from \$117.3 billion in 2007 to an estimated \$123.9 billion in 2008. It should reach \$176.7 billion in 2013, a Compound Annual Growth Rate (CAGR) of 7.4%. Nutraceutical foods currently have the largest share of the market and were worth \$41 billion in 2009. This is expected to increase to \$56.7 billion in 2013, for a CAGR of 6.9%. Nutraceutical beverages generated \$38.4 billion in 2007 and an estimated \$42.8 billion in 2009. This segment is expected to dominate the market in 2013 with revenues of \$71.3 billion, for a CAGR of 10.8%. US has been the major market for nutraceuticals with India and China becoming fastest growing markets.



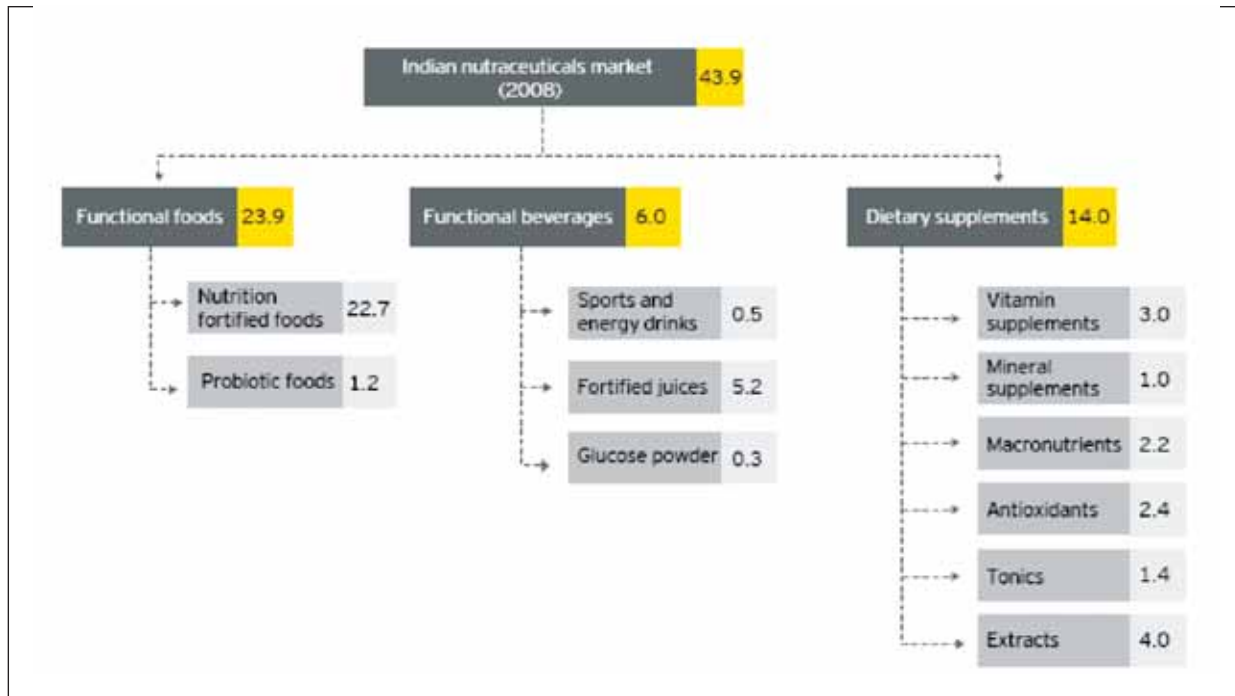
Indian market share in nutraceutical global market is less than 1% of the total market but it has been growing on much faster than global rates with annual CAGR of 18% since last 3 years. Although the global nutraceuticals market share of India is very less but with increasing awareness and accessibility and population it is one of the most potential latent market for business in nutraceuticals. (see graph on page 25)

Large global food companies, which are always on the lookout for ways to diversify their product line and still turn a profit, have set up functional food or nutraceutical divisions. Pharmaceutical companies are now adopting nutraceuticals and the recent trend is convergence of food manufacturing companies with pharmaceuticals to implement the research necessary for drug discovery; the move into the less expensive and time consuming nutraceuticals research process. It is thus becoming a logical progression for many food companies to enter into nutraceuticals market.

In the nutraceutical sector British Biologicals takes the leadership status with GlaxoSmithKline, Novartis, Wockhardt, Alchem, Alembic, Abbott and Elder Pharma also coming out with a range of nutritious supplements. Current dominant players in the segment of health ingredients are Phytotech Extracts, Sami Labs, Avesthagen and Pristine. Apart from existing players in the nutraceutical business many new companies like Alkem laboratories, Piethico, Divil's laboratory, GNC, vitabiotics have future expansion and diversification plans in the segment.

Critical Obstructions :

Although there are greater opportunities to convert opportunity into the business, some critical impediments will play key role in converting opportunity in to reality. One of the major issues with the Indian market segment is lack of regulatory framework to govern nutraceutical market. The food and safety standards act 2006, brought into existence the Food Safety and Standards Authority of India (FSSAI) which is the responsible body to frame appropriate guidelines for the same. These rules are yet to be formed which will bring out conducive environment for the nutraceutical business. Even if regulations are formed there are insufficient resources to enforce and implement them. Prices of



nutraceuticals, lack of credibility for product and proper research development straggles are also important factors for consideration.

However Increasing awareness levels about fitness and health, spurred by media coverage are prompting the majority of people to lead healthier lifestyles, exercise more and eat healthy. The expanding nutraceutical market indicates that end users are seeking minimally processed food

with extra nutritional benefits and organoleptic value. This development, in turn, is propelling expansion in the nutraceutical markets globally. The emerging nutraceuticals industry seems destined to occupy the landscape in the new millennium. Its tremendous growth has implications for the food, pharmaceutical, healthcare and agricultural industries.

Be brave enough to live creatively. The creative is the place where no one else has ever been. You have to leave the city of your comfort and go into the wilderness of your intuition. You cannot get there by bus, only by hard work, risking and by not quitting

- Alan Alda



Indian Pharma Industry : An Insight from the IP Perspective

Taranpreet Lamba,
General Manager, IPM,
Glenmark Pharma



Mr. Taranpreet Singh Lamba, General Manager-Intellectual Property Management, Glenmark Pharmaceutical Limited, Navi Mumbai is a graduate in Pharmacy from Sambalpur University, and M.Tech in Pharmaceutical Technology from National Institute of Pharmaceutical Education and Research. He has a Diploma in Patent Law from NALSAR University of Law, Hyderabad and is a certified Patent Agent. Mr. Lamba is engaged in the field of Intellectual Property primarily in the area of patents for almost 10 years. He spearheads the Patent Department in Glenmark Pharmaceuticals Limited since last five years. Prior to joining Glenmark Mr. Lamba was with Dr. Reddy's Laboratories and Torrent Pharmaceuticals Limited in their Patent Department.

The pharmaceutical industry today is reflective of a highly competitive environment. With advancements on the technological front and greater focus on R&D, new and improved drugs are ready to hit the market sooner than expected. These improvements may be nominal or considerable, but as an example, they may be significant enough to constitute an important breakthrough in terms of existing lines of treatment. The important criterion that needs to be considered here is the high risk of innovation that this industry faces at every step of development, along with the high investments that is incurred in R & D, production, and marketing; and the need for highly skilled human resource. The innovations in the form of drugs, hence constitute crucial intellectual property, that must be protected in order to get returns on the investments and to draw a balanced picture of the market. This protection is provided by fencing the inventions with patents. A patent is defined as a set of exclusive rights, granted by an authority (specific to jurisdiction) to an inventor or his assignee, for a limited period of time (20 years), in exchange to the public disclosure of his invention. Patent laws seek to provide a method to manage these innovations and also attempts to address the issue of public health by catering to the need of essential drugs by the general public.

With globalization and the changing world trade environment where geographical boundaries were fading, there was a need to set a framework that would harmonize the process of seeking IP protection globally. As a result, TRIPS [The Agreement on Trade Related Aspects of Intellectual Property Rights, an international agreement administered by the World Trade Organization (WTO), intellectual property laws] was introduced into the international trading system for the first time in 1995 where minimum standards were laid for the regulation of different



forms of Intellectual Property (IP) and applied to nationals of all WTO Members. TRIPS laid guidelines for different forms of IP including patents, trademarks, copyrights and related rights, GIs, industrial designs, and layout designs. For synchronizing patent laws, TRIPS provided guidelines addressing the criteria required for patentability, defined an invention and non patentable inventions, detailed national treatment to members of WTO and the principle of Most Favoured Nation Treatment, and laid down enforcement mechanisms as well. An important provision of TRIPS was the flexibility it provided to its members to determine the appropriate method of implementing the provisions of the TRIPS Agreement within their own legal system and practice and permitting them to implement more extensive protection than is required, provided that such protection did not contravene other provisions of the agreement. All developing countries including India were given a ten-year transition period for adopting and enforcing the prescribed standards in order to comply with TRIPS i.e. until 2005. India became a signatory to TRIPS in 1995. The Patent Act, 1970 was amended in three stages to comply with TRIPS. In the Patent Act prior to amendments, inventions related to food or pharmaceuticals were granted patents only for processes and methods and the term of patent was for seven years from the date of patent (section 27, Patent Act as amended in 2002). This short duration discouraged the Pharma industries to conduct research and obtain IP rights for the same in Indian jurisdiction. However, this lacuna was removed on compliance with TRIPS as the term of patent was extended to 20 years, and the grant of product patents was introduced. This attracted both small and large players to protect their inventions in India and consequently led to the development of a healthy competitive environment where

the local players too are encouraged to develop more effective drugs / processes in a competitive/economic way.

The implementation of TRIPS leading to the grant of product patents has changed the picture of the Indian Pharma Industry and has left a significant impact on generic drug production. The generic versions being similar in terms of safety, strength, quality and performance characteristics, are also affordable. Prior to TRIPS compliance, majority of the Pharma entities focused their resources and interests on marketing generic versions of

innovator drugs. But now, they are prompted to remodel their policies. Due to the 20 year protection period granted to patented pharma products, they cannot enter the markets before the expiry of patent term. Therefore, instead of waiting for such a long duration, they are now opting for working around patented products or challenging patents by entering into pregrant / postgrant oppositions, or revocations to nullify the patents. For instance, Suven Life Sciences obtained patents for a class of serotonin receptor affinity compounds, used in treatment of neurogenerative conditions. For that matter, important anti-HIV drugs such as tenofovir and oseltamivir have been refused patent in India after facing stiff pre-grant oppositions.

The Indian Pharmaceutical Sector has come a long way, being almost non-existing during 1970, to a prominent provider of health care products; meeting almost 95% of the country's pharmaceutical needs. Currently the Indian Pharma Industry is valued at approximately \$ 8.0 billion. Indian Pharmaceutical Industry has over 20,000 units; around 260 constitute the organized sector, while others exist in the small scale sector.

India is a member/signatory to – TRIPS (1995), Paris Convention (1998), Convention on Bio-diversity (1994), Budapest Treaty (2001), Berne Convention, Universal Convention for Copyright (1952) and many others. India fulfilled the WTO Commitment and our Patent's (Amendment) Act 2005 has become TRIPS Compliant since 1st Jan 2005. India thus joined the countries having

“

The Indian Pharmaceutical Sector has come a long way, being almost non-existing during 1970, to a prominent provider of health care products; meeting almost 95% of Country's Pharmaceutical needs.

”



industrialized free market economies and have started to grant product patents.

The trend of patent filing in our country has tremendously increased, Economic Times of Jan 7, 2009 has reported that “a total of 35,218 patent applications were filed, 6040 from domestic and 29,178 from foreign applicants in the last fiscal”. Though innovations and strengthening of the Patent System is important for Industrial Growth, it is equally important to take necessary steps to safeguard the sanctity of our Patent System and prevent filing and grant of frivolous unpatentable subject matters, which is being addressed.

The new patent regime has led many multinational pharmaceutical companies to look at India as an attractive destination not only for R&D but also for contract manufacturing, conduct of clinical trials, generic drug research and co-marketing alliances.

The focus of Indian pharma companies is also shifting from process improvisation to drug discovery and R&D. Indian companies are setting up their own R&D facilities and are also collaborating with the research laboratories like CDRI, IICT, etc.

In addition, there are also certain provisions under the Patent Act to cater to public health concerns. An example is compulsory licensing, wherein the government can intervene in the rights of the patentee and permit generic manufacturers to manufacture generics during the term of the patent if the needs of the general public are unfulfilled.

Under section 47, the grant of the patent is subject to the condition that the government can make use of a patented invention for its own purposes. Also, Bolar like provision (S 107 A) allows the generics to collect information and obtain regulatory permission before the expiry of the patent so that the product can be introduced into the market as soon as the patent expires. But all these provisions, are yet to be fully tested in the court of law. On the other hand, government is also actively assisting the Indian companies by extending financial support for patenting and drawing maximum

benefits from worthy innovations.

The patent regime adopted in TRIPS by the developed countries is somehow of the capitalists nature and it prioritizes the profit motive over the social responsibilities. In continuation to these discrepancies, TRIPS also rule out any discrimination between the technological sectors and advocates the same protection for all the technological inventions fulfilling the criteria.

There is no doubt that “product patent regime” has spurred the R&D for diseases—notably, those with the lucrative potential market in the industrialized world. However, TRIPs has failed and will continue to fail to stimulate sufficient R&D for diseases that primarily affect poor countries. TRIPs had forced all the developing countries to switch over to product patent regime from process patent regime and hence, restrict the access of the cost effective essential medicines to their people.

Trade Related Aspects of Intellectual Property Rights (TRIPS Agreement)

Patents in India marked the beginning of a new patent regime aimed at protecting the Intellectual property rights of patent holders.

As part of its WTO-TRIPS regime obligations under Articles 70.8 and 70.9, India created the "mail-box" to withhold patent applications which had pharmaceutical products as a subject-matter. What was unveiled as a provisional measure was the transitional system of "Exclusive Marketing Rights" to ensure the interests of domestic manufacturers who mainly survived on off patenting and reverse engineering of patentable bulk drugs and formulations for a long time. In the last years of the regime, grant of two major yet controversial EMR's to Novartis and Eli Lilly showed how the entire system shook up the domestic manufacturer who waged a litigative battle in response to the

“

The focus of the Indian Pharma Companies is also shifting from process improvisation to drug discovery and R&D.

”



first simulation of the post-product patent industry scenario in India. This not only lay threadbare as to how the grant mechanism was liberal, draconian and absolutist in the eyes of the Indian manufacturer. The focus which the policy makers lost in connecting quality control regulations with grant process of marketing rights was the bureaucratic red tape surrounding the operation of provisions in the Drugs and Cosmetics Act, 1940 and the way clinical trials were conducted in India

Main Provisions Associated With TRIPS Agreement

The TRIPS consistent Indian patent law addressed three important issues relating to patent of products:

- i) Adoption of definition of “pharmaceutical substance”;
- ii) Exclusion of “mere discovery of a new form of known substance” and “new use for a known substance”; and
- (iii) Protecting the interests of those who are already producing the products which may be granted patent protection in the new regime.

The Indian government appointed the Technical Expert Group (TEG) under the Chairmanship of Dr. R. A. Mashelkar, Director General, Council of Scientific and Industrial Research consisting following members: Prof. Goverdhan Mehta, Director, Indian Institute of Science; Prof. Asis Datta, Director, National Centre for Plant Genome Research; Prof. N.R. Madhava Menon, Director, National Judicial Academy; and Prof. Moolchand Sharma, Director, National Law Institute University. MNCs had been pleading for patentability even after patent expiry under the plea of incremental innovations, which otherwise is known as evergreening. It was in this context that the Dr. Mashelkar’s committee was appointed

by Government in April 2005 to look into:

whether it would be TRIPS-compatible to limit the grant of patent for pharmaceutical substance to new chemical entity or to new medical entity involving one or more inventive steps; and

Whether it would be TRIPS-compatible to exclude micro-organisms from patenting.

TEG has concluded that excluding micro-organisms per se from patent protection would be violative of TRIPS agreement.

The TEG concludes that it would not be TRIPS compliant to limit granting of patents for pharmaceutical substances to new chemical entities only, since it prima facie amounts to a “statutory exclusion of a field of technology”. However every effort must be made to provide drugs at affordable prices to the people of India. Further, every effort should be made to prevent the grant of frivolous patents and ever greening. Detailed guidelines should be formulated and rigorously used by the Indian patent office for examining the patent applications in the pharmaceutical sector so that remotest possibility of granting frivolous patents is eliminated.

References

1. SARITHA RAI ; *Generic Drugs From India Prompting Turf Battles* ; *The New York Times*, December 26, 2003.
2. <http://www.dancewithshadows.com/pillscribe/indian-supreme-court-dismisses-roches-patent-suit-against-ciplas-erlotinib-tarceva-generic/>

“

MNCs had been pleading for patentability even after patent expiry under the plea of incremental innovations, which otherwise is known as evergreening.

”

Be ready when opportunity comes. Luck is the time when preparation and opportunity meet.

- Roy D. Chapin Jr



Time for Pharmaceutical and Healthcare Reforms

Dr. R. B. Smarta
Managing Director
Interlink



Dr. Raja Smarta is the Founder and Managing Director of Interlink, a leading strategy Consultancy firm since 25 years in the Pharmaceuticals, Healthcare and Wellness space all over the world.

Interlink has been providing the most experienced and insightful strategy consulting for investing, capabilities building, enhancing sustainable business performance and growth in the Pharmaceutical and Healthcare space in India and emerging markets.

Dr. Smarta has a combination of Science and Business accumen. His passion is to develop business on science and create leadership. He is strategic Thinker, Writer, Teacher, Consultant, Corporate Trainer and Guide to Ph.D. students. He is providing thought leadership to the industry and management.

Dr. Smarta is an M.Sc. in Organic Chemistry (Drugs) from University of Nagpur (1967). With his two researched books and first hand experience of Pharma, Healthcare, Strategy and operations in (Parke-Davis Ltd, Chemo Pharma, U.S. Vitamins, Roche (A.F.D.), Wockhardt Ltd) he has earned Doctorate in Management Sciences from University of East Georgia, Savannah (1987).

Dr. Smarta is FRSA (Fellow of the Royal Society of Arts), CMC (Certified Member of Consultants) alongwith his academic qualification. He has been teaching in many management Institutions such as JBIMS (Bajaj Institute of Management Studies), NMIMS (Narsee Monjee Institute of Management Studies), IIM – (Indian Institute of Management) – Indore, Pharmacy College – Manipal. Dr Smarta is regular invitee at international seminars all over the world and is a member on the Board of HADSA (Health Foods And Dietary Supplements Association) and member, IDMA and has a number of published articles in major Industry publications.

He has been invited for specific purposes for International Pharmaceutical Federation (FIP), Delhi Pharmaceutical Trust (DPT), All India Drugs Control officers confederation, AIDCOC, IPA (Indian Pharmaceutical Association), FICCI-HADSA, OPPI, IDMA, IBC – Singapore, etc.

All over the world economic downturn has pressurized nations to bring down their healthcare cost and reform their healthcare systems. Like the US, in most nations, key parts of healthcare bills include cost, corporate healthcare costs and health insurance cost.

Indian pharma companies are mostly operating in the generic space in the US. In the next few years Generics will occupy almost 65% of pharma space. All Indian companies have an opportunity provided they follow the specifics of quality in this market right from product choice and quality, approvals and, market dynamics to marketing mix.

Healthcare and Pharmaceutical challenges :

Overall role of medicines is at the core, while major healthcare delivery is at the periphery. The bulk of the cost for a patient is on the diagnostics and hospital care. The therapy may cost Rs.2000-Rs.3000 per month for a patient of multiple chronic ailment while just one visit to any hospital of repute for hospitalization, may cost him at least ten to twenty times more even if he is admitted for just 3 to 4 days!

In India, we talk about affordable availability of quality medicines to be ensured through regulatory mechanism, while total healthcare delivery has lot of benchmarking from the view point of hospitalization, diagnostics and other surgical interventions.

All restrictions are on the pharma industry and flow of medicines. It needs to be realigned on the basis of quality, availability, prevention of disease and affordability. As the patient education is nobody's issue in India, vested interests influence the sick and would be sick community for their own ends, as information availability on the internet is limited to a minuscule population.



Patient compliance is also an issue and very few look at them as cost constraints and sense of well being makes the patient stop the medication!!

To top it, availability of counterfeit medicines, coupled with faith on pharmacists provides a big challenge for overall healthcare community. A number of measures can be taken to reduce such incidences, whilst ensuring reduction in cost and. Profitability.

The hinterland markets need different type of development right from pure water, electricity, energy to funding mechanism. This definitely needs Government intervention.

Industry needs to be empowered by Government through a robust regulatory mechanism, conscientious corporates, community of providers, medical practitioners and insurance companies.

Indian Healthcare Reforms :

In India, reforms can develop on sound principles on the basis of learnings of all available systems and our strengths and needs. The goal of making the common man healthy in Indian demographics, needs a different approach.

- 37% of Indian population is undernourished. They have difficulty in meeting even the foundation needs. 55% of the population have diet which is calorie sufficient but nutrient deficient whereas 8% of the population is overnourished. Hence, there is a total imbalance of nutrition which leads to anemia, TB and many other diseases which increases the disease burden of India.
- Statistics tells us Arthritis, Hypertension, Diabetes, CVD and Cancer patients and elderly

patients are major part of our disease burden. Besides, acute diseases, almost all of them trace their origin to nutrition.

- As Indian population is getting increasingly health conscious, almost 64% of out-of-pocket expenditure in India constitutes healthcare expenditure as compared to 18% globally. This population can be called as Healthy boomers. They need to be properly directed towards maintaining their health.
- All nations have significant role of Health Insurance in healthcare. In India, patient and payer for the treatment is the same. Cost sharing model between Health Insurance and patient can be adopted. 40% to 50% of the burden can be carried by patient or medical consumer, for general coverage while he can carry just 10-15% burden for high risk areas of life. It may depend on the nature of disease. Population beyond 60 also should be covered as life span in India is increased depending on the nature of disease. This sharing ratio should even reverse dependant on the severity of the disease.
- 65% of Indian population lives in rural areas while only 2% qualified medical doctors are available in these areas. Indian healthcare today is urban centric. It needs to be reformed through medical infrastructure inclusive of doctors, nurses, paramedicos, etc.
- Indian healthcare system should start from preventive care through nutrition. Reforms must provide impetus to lift the population which is at the bottom of the pyramid.
- 'Health is Wealth' is an old paradigm of India. It is forgotten due to scarcity thinking Indians. As the demographics are changing, the abundant thinking is getting inducted in 60% of population which is below 35 years in age, for them this paradigm needs

“

In India, reforms can develop on sound principles on the basis of learnings of all available systems and our strengths and needs. To make common man healthy in Indian demographics, needs a different approach.

”



to be inculcated through education. This new paradigm should originate from nutrition to exercises to preventive healthcare to healthcare. It should be proactive rather than reactive in terms of its reforms.

- As soon as possible health must become a priority issue for the Government of India. It means department of pharmaceuticals, FSS, Ayush and related bodies should be appropriately part of Ministry of Health and Family Welfare or in other suitable ministry. Government has taken up HIV, TB and Tobacco through massive Government programs.
- Overall, India needs to reform its healthcare system through policies, medical infrastructure, education and realization of right nutrition to lifestyle management. Acute diseases over time will be at reactive end of the reforms.

Overwhelming challenge :

The top most challenge for industry is to develop marketability from the industry perspective for a common man in every country. There has been lot of contribution of pharma industry through new molecules as the diseases proliferate. Recently, Swine Flu erupted and vaccines came within 7 to 8 months from the epidemics! Speed was of essence!

Yet, it is seen that there is no empathy of a common man towards pharma industry as he does not get connected with the industry issues by the media. The nearest contact with him is his pharmacist. For the distribution chain, industry is providing almost around 26% of maximum Retail price! Besides it, the trade promotion and highly competitive nature of the market, there are more options for the patients. Their role in improving healthcare delivery is so crucial that, they can bridge the gap of between patient and industry!!

Even the pilot project conducted in Maharashtra recently by AIDCOC (All India

Drugs Control Organisation) has shown phenomenal results, the whole project can be scaled up.

Media highlights on withdrawal of molecules yields huge publicity of omissions and commissions of industry. This needs to be worked upon by self regulation by industry and media restrictions in a balanced way.

It's true from the point of view of a patient that he needs to be healthy as quick as possible. Even focus of industry is to provide 'health' by making him disease free. Ironically, focus of both stakeholders is one, yet, they don't meet eye to eye. Lot needs to be done at societal level.

In other words, critical balance for pharma industry needs Economic, Commercial, Social and Political balance. Overall it is really a balancing act.

“

It's true from the point of view of a patient that he needs to be healthy as quick as possible. Even focus of industry is to provide 'health' by making him disease free. Ironically, focus of both stakeholders is one, yet, they don't meet eye to eye. Lot needs to be done at societal level.

”

Be nice to your kids. Remember, they will soon be choosing your nursing home.

- Anon



"Sanofi-Aventis Scans India for Acquisitions"; "Glaxo Eyes Piramal, Dr. Reddy's Labs"; "MNCs Eye Indian Pharma": If these and other recent headlines are any indication, India's pharmaceutical companies are in play for multinational suitors. According to some industry observers, more acquisitions are almost certain once valuations improve -- whether for diversification, exposure to emerging markets or other purposes.

"Pharmaceutical, health care and biotechnology was one of the busiest sectors on India's Deal Street in 2008," according to Bundeep Singh Rangar, chairman of IndusView Advisors, an India-focused cross-border advisory firm. "At US\$5.57 billion, it was second in terms of total value, marginally below telecommunications, which had total transactions worth US\$5.78 billion." The pharma sector had 57 deals, second only to the 102 deals in the IT and IT services sector, Rangar adds.

In June 2008, the acquisition of Ranbaxy Laboratories -- India's biggest drugmaker at the time -- by Japanese firm Daiichi Sankyo set the ball rolling. At US\$4.6 billion, it was the largest of India's deals for the year. Since then, the Dabur Group, which operates in the wellness space, sold a 73% stake in its Dabur Pharma prescription business to Singapore-based Fresenius Kabi for US\$200 million. Perrigo, an over-the-counter firm based in the U.S., picked up an 85% stake in Mumbai-based Vedants Drugs & Fine Chemicals for US\$12 million. Wockhardt, based in Mumbai, hawked its nutritional supplement brands Farex, Protinex and Dexolac to U.S.-based Abbott Laboratories for US\$130 million and its animal health division to Vetoquinol of France for US\$40 million. And Sanofi-Aventis of France acquired Hyderabad-based vaccine major Shantha Biotechnics for nearly US\$800 million.

Cure for an Ailing Industry? Pharma Multinationals Seek a Panacea in Indian Acquisitions

Knowledge@Wharton

A rash of takeovers in recent months has brought the pharma sector in India once again into the limelight, as the sector records soaring revenues, spearheaded by cost considerations, diversification in the product lines and newer areas of research. Knowledge@Wharton recently took a look at the changing landscape in this sector and deciphered the signals.



"The strategy in India in the past has been around a smaller number of products," says Chris Viehbacher, CEO of Sanofi-Aventis. The company's management in India "is now focusing more on the base business and has accelerated our growth rate from about 7% per year to around 15% to 16%," he notes. "Vaccine is clearly an area where we were in deficit -- pretty much everybody is. And that is why Shantha was so important." The company is still on the takeover trail. "There will be more shopping on the horizon," Viehbacher told Bloomberg News in late September. The objective, he said, is to build the company's "vaccine, biotechnology and non-prescription-medicine businesses, as well as expand in emerging markets."

The Economic Times reports that a team from Sanofi, which had US\$42 billion in revenues last year, visited India recently and held talks with Mumbai-based Piramal Healthcare and the privately held, Bangalore-based Micro Labs. GlaxoSmithKline (GSK), which had US\$45 billion in revenues, is widely reported to be looking to acquire a 5% stake in Dr. Reddy's Laboratories; it already has a marketing deal in place. Pfizer, meanwhile, has struck alliances with Aurobindo Pharma and Claris Lifesciences. "A lot of other proposals of the same kind are floating around, some of which involve second-tier companies" including Torrent Pharmaceuticals, Unichem Laboratories, Shasun Chemicals and Orchid Chemicals & Pharmaceuticals, according to business magazine Business India. "The promoter families of quite a few Indian drug companies are open to the idea

of selling to a multinational company but are waiting for valuations to improve." Says Karan Singh, partner at Bain & Co. India: "Some of the big deals being spoken about haven't gone through because of valuations. But they will."

Four Important Trends

Why has Indian pharma come under the takeover lens? Singh notes that four important global trends are driving MNCs' strategies: "First is cost optimization, for which you need to create a flexible business model. The second is getting into businesses that are different --

vaccines, for instance. The third is the pursuit of profitable growth, for which you need to focus on emerging markets, which give you good margins. Finally [there] is the move into generics, for which many companies have to look at inorganic growth."

"With growth expected to taper off in the U.S. and other developed countries, emerging economies like India are expected to drive future expansion," says Pratik Kadakia, practice head (chemicals and energy) at Tata Strategic Management Group (TSMG). The Indian pharmaceutical market had estimated revenues of US\$17 billion in fiscal 2008, he notes. "The domestic formulation business, which was US\$8 billion, is estimated to grow at over 12% annually to reach US\$14 billion by fiscal 2013." The key growth drivers in the domestic market, according to Kadakia, are "increasing per-capita income, growing insurance penetration, better health awareness, higher Government expenditure, adherence to IPR (intellectual property rights) norms, and shifts in disease profiles. "Also, the country "has established itself as a leading player in generics manufacturing as well as contract research and manufacturing. This is of interest to MNCs, which are currently facing a relatively low pipeline of new innovator drugs. Increased pressure from governments in several developed countries to reduce health care costs has also forced large pharma companies to look at enhancing their generics portfolio."

Sujay Shetty, associate director of the pharma life sciences practice at PricewaterhouseCoopers (PwC), agrees that getting access to India's domestic market and adding generics to portfolios are two primary drivers behind the increasing number of takeovers by MNCs in the pharma sector. "Until recently, India was not an important market for big pharma

“

The key growth drivers in the domestic market, according to Kadakia, are "increasing per-capita income, growing insurance penetration, better health awareness, higher government expenditure, adherence to IPR (intellectual property rights) norms, and shifts in disease profiles.

”



companies because it accounted for only a very small percentage of their global revenues. But over the next 10 years, India is expected to become a multibillion-dollar market, among the top 10 markets globally." Indeed, Rangar of IndusView notes, "Consumer spending on health care [in India] increased from 4% of gross domestic product in 1995 to 7% in 2007, and is expected to rise to 13% by 2015." However, Shetty adds that tapping the Indian market will require a tailored approach. "Cost efficiencies are important, price points are important. There are lots of poor people and different disease profiles."

On the generic front, Shetty points out that "earlier, generics used to be the lower end of the game, the bottom of the barrel. But those days have changed. Now there is a big drive for generic substitution wherever possible, because the prices collapse by 90%. All the big pharma players want to take a bigger role in generics. They realize that having generics in their portfolio gives them an extra arrow in the quiver while dealing with policymakers globally.... One way is to acquire Indian drugmakers that have proven skills in manufacturing, can keep their operations lean and have cost-effective generic development methods."

"Expansion by global pharma companies into emerging markets like India becomes imperative as about US\$103 billion worth of patented drugs will go off patent in the next few years," Rangar says. "This will further hit the already sagging fortunes of such companies. Thus they are trying to augment their revenues by acquiring or aligning with companies in the generics business. The acquisition of Ranbaxy is an apt example in this context."

The industry itself isn't necessarily looking to sell out. According to an October 10 report in Businessworld, the Indian

Pharmaceutical Alliance, a lobby of 12 top home-grown drugmakers, was seeking the government's help to prevent acquisitions by foreign companies, through funding to protect and promote the industry and through tackling such issues as patents and price controls.

A Fragmented, Vulnerable Market

The Indian market is vulnerable because it is fragmented. At the end of 2008, according to pharma research firm ORG IMS, the top five companies had a combined market share of only 22%. Cipla Ltd. had the largest, having ousted Ranbaxy from the top spot, yet its share was only 5.3%. The top 20 companies had a total market share of about 57%. Globally, the 10 largest companies account for about 40% of sales.

According to Espicom Business Intelligence, a market information provider based in the United Kingdom, India is the world's fourth-largest producer of pharmaceuticals by volume, accounting for around 8% of global production. In value terms, India's production accounts for around 1.5% of the world total, ranking India thirteenth. Espicom highlights the Indian pharmaceutical industry's fragmentation.

"While there are around 270 large R&D-based pharmaceutical companies in India, including multinationals, government-owned and private companies, there are also around 5,600 smaller licensed generics manufacturers, although in reality only around 3,000 companies are involved in pharmaceutical production. Most small firms do not have their own production facilities, but operate using the spare capacity of other drug manufacturers."

"The intense competition in a highly fragmented market is posing a great challenge," says Rangar. "The stage is set for the next phase of growth accompanied by consolidation." Adds Shetty of PwC: "India is one of the most competitive markets in the world, primarily because it is very fragmented. No one enjoys dominance and that is unlikely to change in the near future."

Cost considerations are also driving MNCs' interest.

“

At the end of 2008, according to pharma research firm ORG IMS, the top five companies had a combined market share of only 22%.

”



India "offers the benefits of low-cost R&D, a domain in which it is estimated to capture a 10% to 20% share of the world's business by 2020 from less than 1% currently," Rangar notes. "Globally, pharmaceutical companies are shifting their outsourcing activities to Asian markets, with India emerging as one of the most attractive destinations," according to an August 2009 report by the Organization of Pharmaceutical Producers of India (OPPI) and Ernst & Young (E&Y) titled, Taking Wings: Coming of Age of the Indian Pharmaceutical Outsourcing Industry. "India is a fast-growing custom manufacturing outsourcing destination with a growth rate of 43% that is [three times] the global market rate," the report states. "This is driven by its ability to create a differentiating cost value proposition powered by its lower manufacturing costs, skilled manpower and strong technical capabilities."

The report rated India highest in terms of cost-efficiency attractiveness among six destinations including China, Eastern Europe, Puerto Rico, Singapore and Ireland. "India's cost efficiency is driven by its low manufacturing cost, which is only 35% to 40% of the cost of manufacturing in the United States, supported by its low installation and manpower cost," according to the report. "In drug discovery and development services, India is emerging as a hot spot, growing at around 65%. India offers significant cost arbitrage in end-to-end R&D with potential savings of 61% as compared to the United States."

Another E&Y study, developed with the Federation of Indian Chambers of Commerce and Industry (FICCI), says India enjoys significant cost arbitrage in the conduct of clinical trials, which includes infrastructure, patient recruitment, manpower, data management and processing costs. "The cost of these activities in India is typically 40% to 60% lower than in developed countries and around 10% to 20% lower than in other emerging economies," says the study, Report on Compelling Reasons for Doing Clinical Research in India. At least eight of the top 10 pharma companies internationally are tapping such allied services in

“

India is a fast-growing custom manufacturing outsourcing destination with a growth rate of 43% that is [three times] the global market rate

”

India. The sector is growing by 21% annually in India, compared with 7.5% globally.

According to Espicom, the U.K.-based market information provider: "With low-cost manufacturing, high-quality research and manufacturing facilities, and educated personnel, the Indian pharmaceutical industry presents both a competitive threat and partner opportunities."

A Growing Affluent Market

MNCs have another reason to eye India. The FICCI-E&Y study says that high-value drugs from MNCs could produce up to US\$8 billion in sales by 2015. The population in India's highest income class is expected to grow to 25 million in 2015 from 10 million today, so more people will be able to afford high-value patented drugs. "MNCs are increasingly restructuring their operations with global parents increasing their equity stakes in their Indian affiliates," the report says. Companies such as Bristol-Myers Squibb and Merck that had exited the Indian market have staged a reentry. "Lifestyle disorders will make people more vulnerable to ailments such as cardiovascular diseases and diabetes," says Rangar of IndusView. "Secondly, medicines will become more affordable to a larger number of people as the size of India's 300 million middle class is rapidly increasing and income levels are also going up."

Affordability is at the forefront of debate. "We need to think how such deals affect our poor people and whether [the deals] can block access to drugs at a reasonable price," opposition leader L.K. Advani said in the Lok Sabha, India's lower house of Parliament, at the time of the Ranbaxy takeover.

"But the entry of MNCs does not necessarily mean more expensive medicines," says Kadakia of TSMG.

"It could lead to the introduction of patented drugs for lifestyle diseases. But



India will continue to need affordable medicines, particularly for acute ailments. These are typically served by generic medicines which are affordable and, in certain cases, their prices are regulated by the government. While we can expect patented medicines to be launched in India, particularly due to growing confidence in Indian IPR laws, affordable generic medicines will continue to comprise a very significant section of the market."

"There is always a fear that if MNCs come and dominate the pharma market they will raise prices," says Shetty of PwC. "In fact, that is why India has developed its own homegrown pharma industry by adopting a process-patent route as opposed to a product-patent route. In India, the cost of medicines going up matters in terms of aam admi (common man) policies. But drug pricing is still controlled by the government so, hypothetically, even were the MNCs to dominate, I don't think they would have pricing power."

Kadakia says that pharma takeovers elicit so much attention because health care is of key importance everywhere. "Health care and pharmaceuticals will continue to be of strategic interest for the country. The pharmaceutical industry will continue to be watched and followed keenly by the media as well as the government, unlike several other sectors." That is why industries such as advertising and market research have become almost 100% foreign-owned without a murmur, while pharma takeovers have a host of critics.

The criticisms notwithstanding, MNCs obviously are attracted to India. From the Indian point of view, it makes sense to join hands or sell out. Intense competition is one reason. A patent regime established in 2005 that limits the industry's ability to introduce new generic drugs is another. "With the increasing need for capital to sustain momentum, a number of Indian

pharmaceutical companies will find it difficult to pursue the growth path on their own," Rangar says. "Such companies will be ideal candidates to join hands with strong multinational companies."

Indian companies face other problems, too. Exports, mainly of generics, have become an increasingly important business component. But some Western countries are setting up what are perceived as non-tariff barriers. For example, the U.S. Food & Drug Administration has taken action against several companies; early this year, it banned 28 of Ranbaxy's drugs, saying the company had falsified data and test results in approved and pending drug applications. Also, several shipments of generic drugs destined for Latin American countries have been seized in European ports. A Dr. Reddy's consignment of losartan, used to lower blood pressure, was seized in transit to Brazil by Dutch customs officials. The U.S. multinational DuPont holds the patent for losartan in the Netherlands. Several such seizures have occurred that the Indian industry considers illegal because the drugs were in transit and not meant for sale in any European market.

Indian Companies 'At a Crossroads'

"Indian companies are at a crossroads," says Singh of Bain. Because of the increasing competition, "winning in commodity generics in developed markets will be difficult. Today, valuations are fantastic.

So divest. If you do not divest, you have to invest. But for that you need resources. Ranbaxy and Shantha got very rich valuations, some three to five times sales. So India promoters are asking themselves: Why shouldn't I cash out?"

The "rich" valuations Singh talks about raise a different issue: Are MNCs paying too much? Consider what happened to Daiichi after the Ranbaxy purchase. At the time of the acquisition, BusinessWeek wrote: "Japan's Daiichi Sankyo makes Ranbaxy Laboratories an offer it can't refuse." The Singh brothers, Malvinder and Shivinder, sold their 34% stake to the Japanese major for US\$2 billion. Daiichi paid a

“

While we can expect patented medicines to be launched in India, particularly due to growing confidence in Indian IPR laws, affordable generic medicines will continue to comprise a very significant section of the market.

”



“

There has been a reduction in outbound M&A for one, the capital availability has gone down significantly and two, some of the high-profile cases have proved to be not very easy.

”

similar sum in an open offer to ordinary shareholders; it now owns 63.9% of the company. At the end of the year, the Japanese company was licking its wounds. It had to write down US\$3.84 billion after

Ranbaxy shares plunged 66% on the Bombay bourses, in line with the rest of the market. Four years of Daiichi's profits were wiped out. That doesn't seem to have fazed others. "Japan's largest and oldest pharma giant, Takeda Pharmaceutical, is keenly eyeing Ahmedabad-based Torrent Pharmaceuticals as a possible acquisition," The Times of India

reported soon after the Ranbaxy takeover in July 2008.

Takeda and Daiichi are looking to the future. When the Indian pharma industry itself looks to the future, what does it see? Just a few years ago, Indian companies seemed to be on the takeover trail. "The roles have now reversed in the Indian pharma M&A space," says the daily Business Standard. "In the growth years of 2005 to 2008, companies like Wockhardt, Dr. Reddy's and Ranbaxy were busy shopping abroad to expand their global footprint. In 2007-08 alone, Indian drug companies made 14 acquisitions abroad at a cost of US\$1.3 billion." Some deals have gone wrong. Wockhardt is selling off because it borrowed too much to fund acquisitions and ended up with financial problems. Sun Pharma is still fighting a legal battle over its bid for Taro of Israel. The experiences of some others -- Dr. Reddy's with Betapharm of Germany for one -- have not turned out well: The company has had to write off around US\$300 million on account of this German subsidiary.

"There has been a reduction in outbound M&A," Shetty notes. "For one, the capital availability has gone down significantly and two, some of the high-profile cases -- Dr. Reddy's with Betapharm -- have proved to be not very easy. They have not been earnings-accretive.... But there will continue be a hunt for acquisitions overseas, though the sizes of the deals will be down and the players will be a lot more cautious."

Is it the end of the Indian pharma MNC? No, says Singh. "Indian generic MNCs will come up. Sun Pharma is trying. So is Dr. Reddy's. They could become generic MNCs. Companies that have ambitions are not going to give up. This is just a pause."

© IndiaKnowledge@Wharton

Courage is almost a contradiction in terms. It means a strong desire to live taking the form of a readiness to die.

- G. K. Chesterton



History

- The history of modern enzyme technology really began in 1874 when a Danish chemist Christian Hansen produced the first specimen of rennet by extracting dried calves' stomachs with saline solution. Apparently this was the first enzyme preparation of relatively high purity used for industrial purposes. This significant event had been preceded by a lengthy evolution.
- Even though the action of enzymes has been recognized and enzymes have been used throughout history, it was quite recently that their importance was realized.
- In 1876, William Kuhne proposed the name 'enzyme' be used as the new term to previously known as 'unorganized ferments', The word itself means 'in yeast' and is derived from the Greek 'en' meaning 'in', and 'zyme' meaning 'yeast' or 'leaven'.

Enzymes - The miracles of nature

- What are enzymes?
- Enzymes are proteins; composed of amino-acids, which are produced by all living organisms
- Enzymes are responsible for a number of reactions and biological activities in plants, animals, human beings and microorganisms.
- Enzymes are essential for all metabolic processes, but are not themselves living materials
- Enzymes are bio-catalysts; different from other proteins because of their catalytic activity
- Enzymes are very efficient catalysts for biochemical reactions. They speed up reactions by providing an alternative reaction pathway of lower activation energy

Industrial Biotechnology

Piyush Palkhiwala

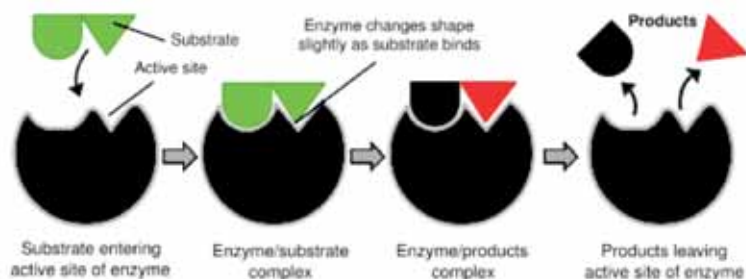
Chairman & Managing Director
Maps Enzymes Limited
(Formerly Maps (India) Limited)



Some 35 years ago, when biotech was virtually unheard of in our country, Piyush Palkhiwala decided to start the enzyme manufacturing unit called "MAPS Industries" instead of joining the family business. Starting with just one enzyme 'Alpha Amylase' used in the textile industry, MAPS today has developed 10 enzymes all with the prefix "Palko".

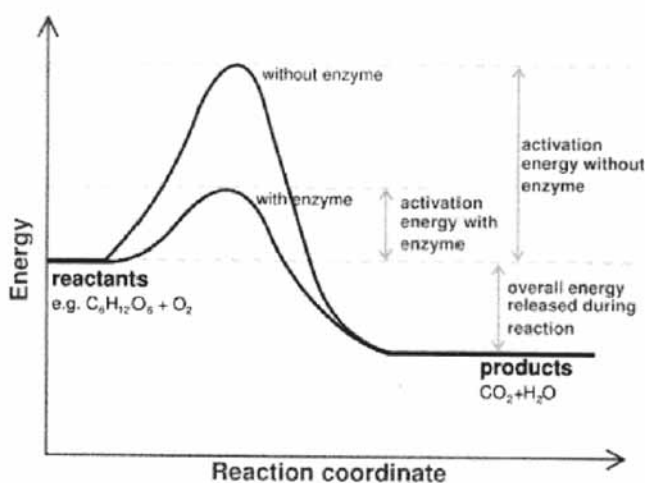
Mr. Palkhiwala received a graduate honours degree in Bachelor of Science from Ahmedabad University and is an Enzymologist from I.I.T., New Delhi. His indigenous efforts in biotechnology have given global recognition both in Indian Industry and MAPS. His unique vision has lead MAPS transition from an industrial enzymes company to an integrated biotech company. MAPS is today recognised as India's pioneer biotech enterprise.

Piyush Palkhiwala heads the MAPS Group as Chairman and Managing Director since it's incorporation in 1975. He is responsible for strategic direction and technology development of MAPS Group. Under his leadership, MAPS has become an integrated biotechnology company in the areas of enzymes and microorganisms. He is responsible for almost all of the scientific innovations developed by MAPS in enzyme technology. Under his innovation and direction MAPS has grown from a small, regional Ahmedabad-based company with a single product to a major biotechnology company with most sophisticated manufacturing and R&D facilities making 100+ products and serving customers throughout India and overseas. Mr Palkhiwala's pioneering work has been recognised universally through the many awards he has won and is actively involved in other activities like: Chairman, All India Biotech Association (AIBA-WC) : Member of Committee, Federation of Industries, Gujarat (FIA), Committee, Gujarat Biotech Council (Govt. Of Gujarat), Central Leather Research Institute (CLRI), Council of Scientific and Industrial Research (Govt. of India), Entrepreneurs Development of India (EDII), Gujarat State Biotech Mission (GSBTM)



- Enzymes are natural protein molecules that act as highly efficient catalysts in biochemical reactions, meaning they help a chemical reaction to take place quickly and efficiently.
- Enzymes not only work efficiently and rapidly, they are also biodegradable.
- Enzymes are highly efficient in increasing the reaction rate of biochemical processes which typically proceed very slowly, or in some cases, not at all

Enzyme reaction



Enzyme Production

- These naturally occurring enzymes are quite often not available in sufficient quantities for industrial use
- Biotechnology offers the possibility of producing enzymes for industrial use by optimising the living conditions of a microorganism and, therefore, improving its "production capacity"
- This technique, well known since many years, is called fermentation. After this fermentation process, the

enzymes are isolated and further processed for industrial use

Enzymes by Nature

- Enzymes are very specific in comparison to inorganic catalysts
- Enzymes are very efficient catalysts
- Enzymes are part of a sustainable environment
- Enzymes work only on renewable raw materials
- Enzymes are at work in our bodies; - Just eat something.

Enzymes – Working Parameters

- Enzymes work in mild conditions
- Enzymes work at atmospheric pressure and in mild conditions with respect to temperature and acidity (pH)
- Most enzymes function optimally at the temperature of 30°C - 70°C and at pH values, which are near the neutral point

Facts

- There exist more than 3,000 different known enzymes of which only 150 to 170 are used commercially
- Currently only 5% of chemical products are produced using biotechnological methods
- Enzymatic processes are fast becoming better financial and ecological alternatives to chemical-physical and mechanical processes and applications by virtue of being cost effective and more environment friendly



Application areas

Alcohol	Bio methanation	Fish	Waste treatments
Amino acids	Bio transformation	Flavours	Debittering
Animal feed	Butter & butter oils	Fructose	Plant tissues
Analytical	Dairy products	Fruits	Protein
Cheese	Gluconic acid	Cleaning	Detergents
Biscuits	Dental hygiene	Glucose	Rubber
Coffee	Meat tenderization	Ice cream	Starch
Breads	Effluent treatment	Leather	Sucrose
Brewing	Egg processing	Oils	Malt extract
Fats	Pharmaceuticals	Paper	Textiles
Cellulose	Fermentation feed	Tea	Nucleic acids

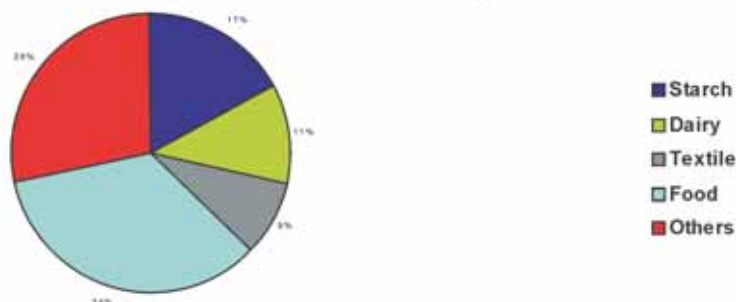
Major Industrial Applications

Industry	Enzymes	Application
Laundry Detergents	Proteinase (91%) Lipase (6%) Amylase (2%) Cellulase (1%)	Removes protein-based stains Digests oils & fats Removes resistant starch residues Digests Cotton 'Fuzz'
Starch	Amylases, Amyloglucosidases & glucoamylases Glucose Isomerase	Converts starch to glucose & other sugar syrups Converts glucose syrups into fructose syrups
Leather	Proteinase (trypsin)	Used in bating process
Textiles	Amylases Peroxidase (Catalase)	To remove starch from woven fabrics To remove hydrogen peroxides
Dairy	Renate Lipase Lactases	Cheese Manufacturing Enhances ripening of blue-mold cheese to break down lactose to glucose & galactose
Pulp & Paper	B-Xylanase Lipases	Emerging technology for enhancing pulp-bleaching Reduces pitch which causes paper to stick to rollers and tear
Brewing	Amylases, Glucanase, Proteinase Proteinase Amyloglucosidase B-glucanase	Splits polysaccharides & proteins Reduces clouding of beers Low calorie beer production Improves filtration characteristics
Baking	Alpha Amylase B-xylanase Proteinase	Catalyses the breakdown of starch in flours Improves the characteristics & rising of bread Reduces the protein in flour



Market segmentation across Industries

Market Segmentation for Industrial Enzymes



Why Enzymes??

- Enzymes can be used to replace harsh conditions and harsh chemicals, thus saving energy and preventing pollution. They are also highly specific, which means fewer unwanted side-effects and by-products in the production process. Enzymes themselves are biodegradable, so they are readily absorbed back into nature.

Environment & Enzymes

- Enzymes Reduce Environmental Impact
- Safer Workplace
- Energy Conservation
- Emerging Applications
- Wastewater Treatment

Environment Biotechnology

- Producing Beneficial & Effective Microorganism
- Substituting non-renewable resources with renewable ones
- Substituting hazardous chemicals with biological products/microorganisms
- Developing more efficient & effective technologies
- Converting waste into useful materials or energy sources
- Bringing Science & Society closer for protection and priority of Human Health & Safety

Environment & Microorganisms

- Bio-augmentation for Industrial Effluent Treatments

- Textiles, Pulp and Paper, Pharmaceuticals, Dairy, Refinery, Food & Beverages, Leather Tannery
- Aquaculture
- Waste degradation & Nitrification in Shrimp ponds
- Agriculture and Animal Waste Management
- Cleaning and Odour Control and Waste degradation
- Institutional and Consumer Waste Management
- Cleaning and Odour Control
- Drain Maintenance
- Grease Trap Maintenance
- Septic Tank Maintenance
- Waste Degradation

Global Scenario

The field of industrial enzymes is now experiencing major research and development initiatives, resulting in the development of a number of new products and an improvement in the process and performance of several existing products.

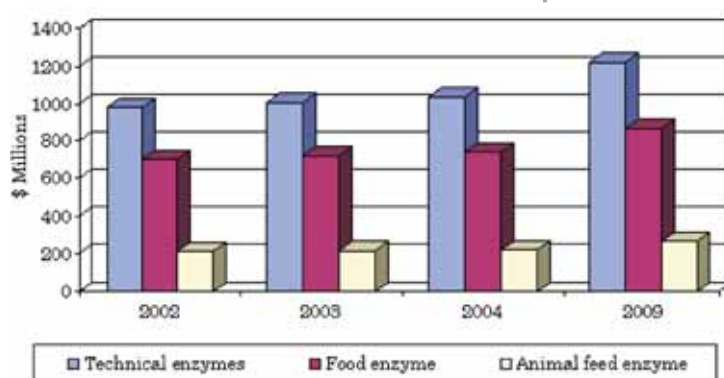
With environmental and cost issues in conventional chemical processes being subjected to considerable scrutiny, biotechnology is gaining rapid ground as it offers several advantages over conventional technologies. Industrial enzymes represent the heart of biotechnology.



Global Enzymes Markets Based on Application Sectors (\$ Millions)

Application sector	2005	2006	2007	2012	CAGR% 2007-2012
Technical Enzymes	1,075	1,105	1,140	1,355	3.5
Food Enzymes	775	800	830	1,010	4.0
Animal Feed Enzymes	240	260	280	375	6.0
Total	2,090	2,165	2,250	2,740	4.0

Industrial Enzymes Shares in Application Sectors (2002-2009)



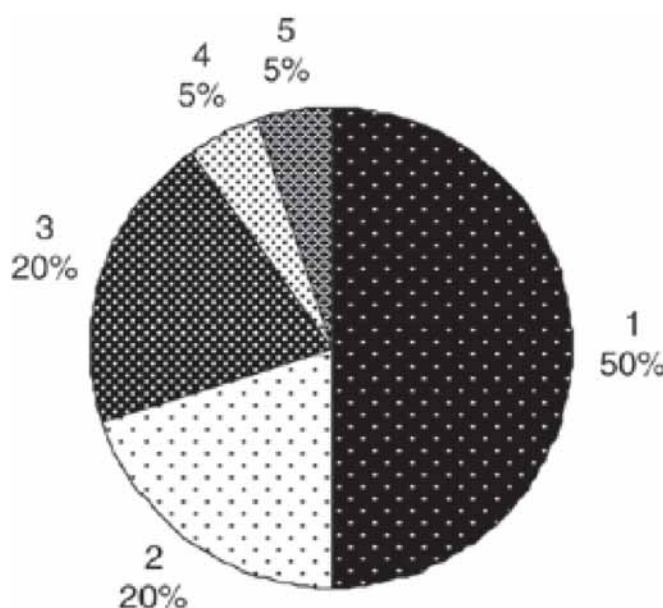
Indian Scenario

- The bio-industrial and information technology sectors have been the two most-decisive factors for the rising Indian economy over the last 15 years.
- India is the second fastest growing economy in the world, with a gross domestic product (GDP) of 9.2 per cent in 2006–2007.
- Pharmaceutical enzymes are the representatives of industrial enzymes' demand in India and cover almost 50 per cent of the total enzyme demand, followed by detergent enzymes (20 per cent) and textile enzymes (20 per cent).
- As per the analysis done by capitalmarket.com, the Indian biotech industry is expected to reach Rs.4,40,000 Crore in 2020.

- Industrial enzymes production and marketing predominantly cover the developments incurred in the bio-industrial sector.
- In 2006–2007, the bio-industrial sector made an impressive turnover of Rs. 3950m, with a growth rate of 5.33 per cent.
- India imports about 70 per cent of the total enzyme consumption.
- In recent years, BT has shown a slow but steady growth and has emerged as an important contributor to world economy.

Indian Biotech Industry – Growth

Indian scenario of Industrial enzyme demands





1. Pharmaceuticals (50%)
2. Detergent manufacturing (20%)
3. Textile processing (20%)
4. Food and feed (5%)
5. Leather and paper (5%)

Estimated Enzyme Consumption in India

• Sector	• Rs. (millions)
• Textile	• 560
• Leather	• 210
• Pharmaceuticals	• 460
• Animal feed	• 150
• Starch, food and beverages	• 210
• Detergents	• 280
• Export	• 310
• Research and diagnostics	• 160
• Others	• 470
• Total	• 2,810

Conclusion

Industrial enzymes have played a significant role in today's commercial status of biotechnology in India. The future will witness more and novel applications of microbial enzymes in far greater areas than what we can anticipate today.

Only those who risk going too far can possibly find out how far they can go

- TS Eliot

Oops!

The Titagur Industries has conveyed to us that the article on the Alcoholic Beverages industry by Dr S Puri in the last issue (Food Processing Industry) be amended as under :

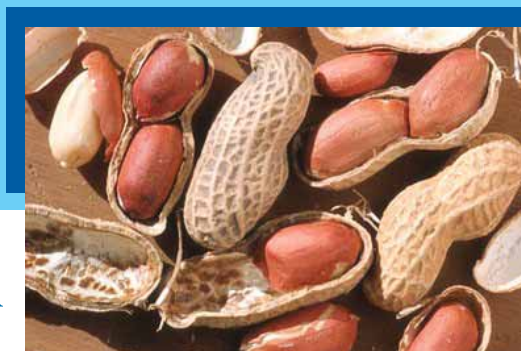
On page 54, the sentence: "They recently commissioned one more 50 KLPD plant and are on the way to commission another 100 KLPD plant in January next year."

be read as,

"They recently commissioned ENA plants viz. one 50 KLPD plant and another 100 KLPD GNS plant".

Retailing continues to occupy our consciousness in this issue as well, as we endeavour to highlight the importance of display in a retail environment. Display is the seduction technique adopted by retail stores to attract the prospective customer by catching her/his attention with the aid of colours, store exteriors, façade and signages that “arouse” the interest of the prospect and lead her/him into the store and eventually to purchase the product on display.

According to the authors, store exterior, façade and the main store sign are what customers or passers by notice or come across at first. Even while visiting a favourite or routine market, the ‘new’ shop is often noticeable from a distance because of its huge signboard, the vibrant colors and decoration at its entrance, or the lights placed at its façade. In the chapter on Display Basics, they have quoted the views of an industry insider, Rahul Rajamuthiah, Chief, Business Development, Future Axiom Telecom Limited, which we reproduce hereunder :



In a Nutshell

Displays in a retail store are an excellent low cost tool available to operational managers to increase footfall and make conversions. In fact, in any highly competitive environment, displays are the only way to distinguish a store from its competitor(s).

The word ‘display’ means to showcase products which a retailer offers customers walking through the street. This function of retail provides the maximum scope for creativity and lets the visual merchandiser use customer-specific insights, cultural tags, popular topics and plenty of cognitive psychology to impact buying behavior.

The impact of a store display starts from the point where the customer has an unhindered view of a store. This means that a store signage with its clearly visible name and/or tagline is the starting point for smaller stores, whereas for larger stores, along with the signage, external display windows play an important role in drawing customers inside,. Once the customer starts walking towards the store the window displays – displaying the seasonal theme, a new product or the latest festival range – provides the customer with an overview of what lies inside the store. For this purpose, in-store signage, props and display elements are considered under the same name of ‘display’.

The Visual Merchandiser and the Store Planner have to be cognizant of the fact that the customer’s senses are being worked upon – starting from a distance of 10 metres to even 100 metres, depending on the store location and size. Learning and applying the impact of visual merchandising on the sub-conscious mind of a potential customer is the skill which makes for brilliant Visual Merchandisers.



Every Visual Merchandiser should be equipped with a map highlighting key locations in a customers' line of sight. It should be based on the distance and direction from which a view will be established. This map could be broken up into the following blocks :

1. 50 metres from the store – Signage.
2. 10 metres from the store – Show window.
3. Point of entry – Store directory
4. Display on merchandise fixtures – Category signage.
5. Staircase/escalators/lifts –Captive viewpoints
6. Mood windows – Windows which display a new arrival or theme.
7. Focal points – Category specific themes highlighting the salient features.
8. Highpoints – Props within the merchandise display shelf highlighting a particular SKU.
9. Colour blocking – Laying out merchandise with colour blocks to highlight shades.
10. Shelf talkers – On shelf product detailing and descriptions.

Each of these elements either attracts the customer or cues her/him towards a category or a product. Displays can be structured according to the tasks they adopt, which may be to :

1. Attract footfall
2. Cue products and
3. Create theme

Any display has to take into account various parameters that decide the kind of display element to be used. If, for example, these elements are to be used in a large street-facing window then the size of the prop has to be large enough to be visible to a passer-by. The colour of the prop has to ensure that the elements are visible both during the day when there is sunlight (sometimes sunlight falling directly on the window hinders visibility) and when it is lit up at night. The following parameters need to be constantly measured to ensure that a display will deliver the objective which it has been created with -

1. Prop size – Based on the viewing distance and the largest object in the front;

2. Colour –Visibility basis backdrop and contrast;
3. Balance – More product centric than prop centric;
4. Lighting – Should highlight the display and
5. Location of the display point.

Financials : At the end, as is the case with any business, all efforts have to be measured for their financial viability. The rationale for deciding this will be based on the cost of the display element and its effect on the retail sales.

Many a time, Visual Merchandisers are faced with the challenge of justifying the expenditure on props and execution. The obvious way to justify these spends is to monitor the growth in sales that is happening as a result of the display. Often, it is difficult to correlate sales impact to VM spends. So, a Visual Merchandiser has to work in close association with the operation teams to identify, the right product to display, and, once the display has been implemented, to meticulously monitor the sales performance of those products that are highlighted.

(Readers are encouraged to read more on the subject from the following publication. Extracted from Visual Merchandising by Swati Bhalla and Anuraag S. Published by Tata McGraw Hill Education Pvt Ltd., Published 2010)

Nothing shows a man's character more than what he laughs at."

-Johann Wolfgang Von Goethe



SMILE AWHILE

I'm the Boss

The company boss was complaining in a staff meeting that he wasn't getting any respect. Later that morning he went to a local sign shop and bought a small sign that read:

"I'm the Boss!"

He then taped it to his office door.

Later that day when he returned from lunch, he found that someone had taped a note to the sign that said:

"Your wife called, she wants her sign back!"

Potential Company Mergers

- If Fairchild Electronics and Honeywell Computers merge, the new company will be called Fairwell Honeychild
- Polygram records, Warner Brothers and Keebler: Poly Warner Cracker
- W.R. Grace Co., Fuller Brush Co., Mary Kay Cosmetics and Hale Business Systems: Hale Mary Fuller Grace
- 3M and Goodyear: mmm... Good
- John Deere and Abitibi-Price: Deere Abi
- Honeywell, Imasco, and Home Oil: Honey I'm Home
- Denison Mines, Alliance and Metal Mining: Mine, All Mine
- 3M, J.C. Penney and Canadian Opera Company: 3 Penney Opera
- Grey Poupon and Dockers Pants: Poupon Pants
- Knott's Berry Farm and National Organization of Women: Knott NOW!
- Zippo Manufacturing, Audi, Dofasco, and Dakota Mining: Zip Audi Do-Da

Contractor Estimates

Three contractors were visiting a tourist attraction on the same day. One was from New York, another from Texas, and the third from Florida.

At the end of the tour, the guard asked them what they did for a living. When they all replied that they were contractors, the guard said, "Hey, we need one of the rear fences redone. Why don't you guys take a look at it and give me a bid?" So, to the back fence they all went to check it out.

First to step up was the Florida contractor. He took out his tape measure and pencil, did some measuring and said, "Well I figure the job will run about \$900. \$400 for materials, \$400 for my crew, and \$100 profit for me."

Next was the Texas contractor. He also took out his tape measure and pencil, did some quick figuring and said, "Looks like I can do this job for \$700. \$300 for materials, \$300 for my crew, and \$100 profit for me."

Without so much as moving, the New York contractor said, "\$2,700."

The guard, incredulous, looked at him and said, "You didn't even measure like the other guys! How did you come up with such a high figure?"

"Easy," he said. "\$1,000 for me, \$1,000 for you and we hire the guy from Texas."

The Great Questions of Life

- Is it because light travels faster than sound why some people appear bright until you hear them speak?
- It's zero degrees outside today and it's supposed to be twice as cold tomorrow. How cold will it be?
- Why do you press harder on a remote control when you know the battery is dead?
- Why do banks charge you an "insufficient funds" fee on money they already know you don't have?
- Why is a carrot more orange than an orange?
- Why are there 5 syllables in the word "monosyllabic"?
- Why do they call it the Department of the Interior when they are in charge of everything outdoors?



City Government Job

A regular walks into the bar and says, "Bartender, one round for everyone, on me!"

The bartender says, "Well, seems you're in a really good mood tonight, hmm?"

"Oh, you can bet on it! I just got hired by the city to go around and remove all the money from parking meters. I start tomorrow!"

The bartender congratulates the man and proceeds to pour the round. The next night the same man walks back in, "Bartender, TWO rounds for everyone, on me!"

The bartender says, "If you're so happy just over having this new job, I can just imagine how happy you'll be when you get your paycheck!"

With a wondrous look on his face, the man pulls out a handful of quarters from his pocket and says, "You mean they PAY me too?"



Once upon a time the government had a vast scrap yard in the middle of a desert. Congress said someone may steal from it at night; so they created a night watchman, GS-4 position and hired a person for the job.

Then Congress said, "How does the watchman do his job without instruction?"

So they created a planning position and hired two (2) people, one person to write the instructions, GS-12, and one person to do time studies, GS-11.

Then Congress said, "How will we know the night watchman is doing the tasks correctly?"

So they created a Q. C. position and hired two (2) people, one GS-9 to do the studies and one GS-11 to write the reports.

Then Congress said, "How are these people going to get paid?"

So they created the following positions: a time keeper, GS-09, and a payroll officer, GS-11, and hired two (2) people.

Then Congress said, "Who will be accountable for all of these people?"

So they created an administrative position and hired three (3) people, an Admin. Officer GM-13, Assistant Admin. Officer GS-12, and a Legal Secretary GS-08.

Then Congress said, "We have had this command in operation for one year and we are \$280,000 over budget, we must cutback overall cost."

So they laid off the night watchman.

The Tax illogical

Tax his land, tax his wage,
Tax his bed in which he lays.
Tax his tractor, tax his mule,
Teach him taxes is the rule.

Tax his cow, tax his goat,
Tax his pants, tax his coat.
Tax his ties, tax his shirt,
Tax his work, tax his dirt.

Tax his chew, tax his smoke,
Teach him taxes are no joke.
Tax his car, tax his gravel,
Tax the roads he must travel.

Tax his tobacco, tax his drink,
Tax him if he tries to think.
Tax his booze, tax his beers,
If he cries, tax his tears.

Tax his bills, tax his gas,
Tax his notes, tax his cash.
Tax him good and let him know
That after taxes, he has no dough.

If he hollers, tax him more,
Tax him until he's good and sore.
Tax his coffin, tax his grave,
Tax the sod in which he lays.

Put these words upon his tomb,
"Taxes drove me to my doom!"
And when he's gone, we won't relax,
We'll then collect the inheritance TAX.



“Grooming” is a broad term encompassing several aspects of one’s being. Polished professionals are the most valuable asset for any organization. They are among the most cost effective methods for a business to generate positive public relations. Individual’s knowledge of the proper grooming and etiquette for any business and social situation will allow concentration on the business at hand and not on their behavior.

Building your confidence starts from the outside – when you know you look good, you feel better about yourself, and the positive reaction you get from other people is very motivating. Enjoy the new confidence from knowing you look your best, and enjoy the compliments from your colleagues and friends.

You can make the most of yourself by dressing for your body shape, your life style and your personality. Discover how the right colors make an amazing difference to the way you look and feel and help you to achieve different looks for different occasions. Learn how to develop your own style and avoid the pitfalls of fashion. Accentuate your assets, disguise your weaknesses, learn the secrets of a coordinated wardrobe, take the stress and time-wasting out of shopping and never make an expensive mistake again!

Etiquette, Poise and Grooming make an immense difference to your personal success. This will definitely give you an advantage, which is so necessary to excel in the highly competitive work culture we all face today. The information you will be exposed to here will give you the confidence to conduct yourself with flair in relevant

Dress Codes and Style Management

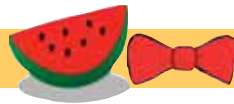
Suneeta Sodhi Kanga
Corporate Trainer



Suneeta Sodhi Kanga is a corporate trainer in the area of grooming, international etiquette, wine appreciation, fine dining, beauty and style, etc.

She started her career as air hostess with Air India and was declared Miss World Airlines 1989 and has flown as VVIP hostess with prominent personalities such as Prime Ministers, etc. on official foreign visits. She started her own consultancy for grooming and beauty, while also launching a slew of Ayurvedic beauty products. She has a very exclusive client list which includes prominent blue chip Indian and MNC corporates and is a regular speaker at various seminars and discussions in educational and other institutes on the subject of good grooming and etiquette. She contributes regularly to journals like Sommelier on wine tasting and appreciation, and rediff.com In this missive addressed to the young upwardly mobile corporate executive, Suneeta dwells on the need to create an 'aura' around you that speaks of culture, education and upbringing without saying a word!

Her email is - suneetakanga@sodhi.net



situations.

Dress Codes and Style Management

(Gentlemen)

“Clothes maketh a man.” There is a style of dressing, which is used by most international establishments. Here is a benchmark of clothes and attire, which can carry you across most of the civilized world with ease and general approval.

- Socks - Dark socks with or without a subtle pattern, long enough not to show the shin when sitting down. Cotton socks are the best buy, black, brown or navy blue are the colors to go for as against bright colors. Try and choose a shade that is closest to your pants. Change your socks regularly. In some cultures you are expected to remove your shoes at the door. Do not be caught unawares with “hol(e)y” socks. Dirty or smelly socks are also an absolute turn off. Use feet deodorant / talcum powder and wash feet with soap and water regularly. Always dry feet thoroughly, esp. between the toes as moisture there attracts odor causing bacteria.
- Shoes - It is said that the true worth of a man is valued more by the shoes he wears than his clothes. Always wear good quality shoes. The safest styles for work are well polished brogues or oxfords made of good quality leather in black, dark brown or tan colors. Keep a tissue handy to clean them if they look dirty.
- Shirts - Men should wear clean, well-ironed, conservative shirts preferably in a light color and fabric, which does not wrinkle or crush fast. The cut should not be too slim nor ultra fashionable in its collar style. Discreet vertical stripes are safe and classy. Solid colors are o.k. too as long as they are not too bright – like red, green, pink, yellow, etc. Pastels are classy. Shirt sleeves must be buttoned at the sleeves, sleeves must not be rolled up. A bracelet over a shirt cuff is not a good idea, and cufflinks would look good only when coupled with a suit and tie.
- Trousers - Whether you opt for tailored or readymade pants make sure the fitting is right especially at the waist. Do not wear too tight, as a bulging stomach divided in two looks terrible. The length of the pants should be just below the ankle and should cover the cut of the shoes.



- Ties - Choose the right tie for the right occasion. A discreetly patterned, striped or plain silk tie of moderate width. Solid colours with a tiny design for the office and textured ties for nightwear are o.k. It is the age for broad ties but there is one general rule of thumb, the stronger the pattern on your jacket the weaker the pattern on your shirt or tie. The best way to keep ties is to hang them so you don't have to iron them each time. If you have a space restriction, roll them up & store. Tie pins when worn should be small.
- Suits - A dark blue or grey suit in good quality pure wool or a man made blend, which looks like wool, possibly with a pin stripe or some similar understated pattern. Care must be taken that when a jacket is worn the pockets do not bulge and while standing all buttons must be properly fastened. While sitting you must undo the buttons to give the jacket a proper fall. However if during the hot weather the jacket must be removed it must be draped neatly with the



pocket facing up, over your left forearm and not slung like a bag over the shoulder. If you must wear a cap it should be worn straight on the head, not at an angle and not pushed back off the forehead. Caps will be removed when indoors. In case of Sikhs, turbans must be worn neatly and kept small.

- Belts- A belt should not be looked upon as an accessory to hold your trousers up but one that enhances your attire. Matching your belt with your shoes is a good idea. A small buckle which does not call any attention to itself is advisable. A simple band of leather works well. A neutral shoe polish can be used to polish it at least twelve hours before its next use.
- Sunglasses - Buy sunglasses that suit your face. If your nose is big make sure that the bridge is low, if your nose is broad avoid dark colors around the bridge. For a high forehead a double bridge where there are two bands on the forehead might look good. Always go for good quality products. Please remember that sunglasses must not be worn in side buildings / offices. Frames/lenses should be of conservative design and colours. The same must not be displayed as part of your clothing. It is also unprofessional to rest them on the head or shirt pocket.
- Wallets- A simple wallet either black or tan leather is best suited for your pocket; don't overstuff your wallet as it does not look good when it bulges.
- Handkerchiefs- Go for simple white or lighter shades cotton kerchiefs.
- Briefcases-Go for smart leather briefcases that suit your needs, polish your bag from time to time to make it look as good as new. Subtle colors in leather are a good idea.

Watches- A watch is an important accessory that every man needs. It reflects one's personality. A quality watch enhances your image; wear a timepiece that exudes class and your seriousness of purpose. A formal watch to work and a trendy one for play is recommended. Large flash/stone studded/sports watch not permitted. Straps may be black/gold /silver. Diameter of the dial should not exceed 3 ½ cms.

- Cell phone- The cell phone has become an important accessory of modern man. It is bad manners to have your phone ringing while you are in a meeting. For starters, keep its volume low or turn it off during a meeting. If you must answer in public, be discreet and keep the conversation brief. Hands must be well kept and finger nails clean, fingers must be free of nicotine stains

Evening dress

(Formals – gentlemen)

Today Evening dress has become so flexible that anyone can wear almost anything. When there were rules people could be certain they wouldn't stick out like a sore thumb. Now hosts use words like "casual" or "informal". These are seldom rigid. The thing to remember is that the look must seem effortless. Nothing must look too new or too carefully donned – "Perfection is - slightly flawed – the sign of a true gentleman."

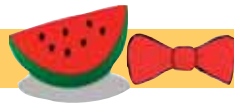
Here are some guidelines to follow in case of uncertainty.

- CASUAL OR OPEN COLLAR – long sleeved shirt, no tie.
- INFORMAL- combination suit, safari suit, long sleeved shirt with tie or scarf/ cravat.
- FORMALS OR "BLACK TIE" – jodhpuri, Nehru suit, black suit, tuxedo, dinner jacket with cummerbund.
- "WHITE TIE" – tailcoat, white waist coat, white bowtie.(top hat, white gloves, silver tipped cane- if you want to really do it in style!)
- SPORTS AND PRIVATE OUTDOOR LUNCHESES – collared t-shirts, khakis, belt, slip-on shoes.

(to be continued...)

"A graduation ceremony is an event where the commencement speaker tells thousands of students dressed in identical caps and gowns that 'individuality' is the key to success."

- Robert Orben



Netiquette - Good Email Manners

Suneeta Sodhi Kanga
Corporate Trainer

- If you are sending an email to multiple people, put their email addresses in the BCC field and your own email address in the To: field. No one likes to share their private email address with strangers.
- The email subject should be detailed enough to give the recipient an idea about the email content without having to open it. Single words like "Hi" or "Hello" or "Help" are a strict no-no. Think of meaningful but short titles.
- Be concise and to the point. Do not make an e-mail longer than it needs to be. Remember that reading an e-mail is harder than reading printed communications and a long e-mail can be very discouraging to read.
- Do not attach large attachments in your email since not everyone is on a broadband connection. If you have to send a large file over email, upload it to services like Yousendit and then pass on the link in the email.
- Do not overuse Reply to All. Only use Reply to All if you really need your message to be seen by each person who received the original message.
- If you have to email more than two documents as attachments, zip them in one file. Doing so would ensure that your friend won't miss downloading any file.
- Do not write an email while you are drunk or in a really bad mood. It would reflect on the style of your writing.
- Do not request a Read Notification Receipt.
- Do not write in CAPITALS. IF YOU WRITE IN CAPITALS IT SEEMS AS IF YOU ARE SHOUTING. This can be highly annoying and might trigger an unwanted response. Therefore, try not to send any email text in capitals.
- Avoid using URGENT and IMPORTANT. Even more so than the high-priority option, you must at all times try to avoid these types of words in an email or subject line. Only use this if it is a really, really urgent or important message.
- Keep your email message short and to the point. Sentences like "I hope this email finds you alive and well" look good only in letter correspondence. Keep it simple.
- Don't leave out the message thread. When you reply to an email, you must include the original mail in your reply,

in other words click 'Reply', instead of 'New Mail'. Leaving the thread might take a fraction longer in download time, but it will save the recipient much more time and frustration in looking for the related emails in their inbox!

- Use short paragraphs and blank lines between each paragraph. When making points, number them or mark each point as separate to keep the overview. Since reading from a screen is more difficult than reading from paper, the structure and lay out is very important for e-mail messages.
- Do not hit the Send button without doing a spell check. An email with spelling mistakes or grammatical errors indicate that you have written the message in a non-serious mood and may convey a bad impression. Always read the message before broadcasting it to the world.
- Do not forward chain letters. We can safely say that all of them are hoaxes. Just delete the letters as soon as you receive them.
- Take care with abbreviations and emoticons. In business emails, try not to use abbreviations such as BTW (by the way) and LOL (laugh out loud). The recipient might not be aware of the meanings of the abbreviations and in business emails these are generally not appropriate. The same goes for emoticons, such as the smiley :-). If you are not sure whether your recipient knows what it means, it is better not to use it.
- Add disclaimers to your emails. It is important to add disclaimers to your internal and external mails, since this can help protect your company from liability.

"A drunk man's words are a sober man's thoughts."

- Steve Fergosi



INDIRA – CII YI SEMINAR



Indira Institute of Career Studies (IICS) hosted a seminar for CII-Yi on 16 January 2010 at Pune. Young Indians (Yi), is an integral part of the Confederation of Indian Industry (CII), Yi focuses on engaging youth and developing leaders for nation-building.

On this occasion 3 prominent guests from CII spoke at the Seminar.

Dr. Rahul Mirchandani, President, CII Yi, India

Dr. Mirchandani is currently the National Chairman of CII's Young Indians. Dr. Mirchandani holds a Doctorate in Management Studies from NMIMS University, Mumbai. He is a Chartered Financial Analyst (CFA) and holds a Masters Degree in Business Administration (MBA) from the University of Canberra, Australia.

Ms. Monica Trivedi, current Chairperson of Yi

She is also a freelance journalist and social activist, also associated with INTACH (Indian national trust for art and cultural heritage) and also helps the ISHANYA foundation with their art shows.

Mr. Nihar Shah, Yi member

He is the founder director of Silver Bright Institute of management. Mr. Shah is director of Silver Bright, an automotive components manufacturer located in Chinchwad. Previously, Mr. Shah was a Finance Manager at Microsoft Corporation in U.S. he has also worked with British telecom in England. Mr. Shah holds a Master's in Business Administration from Simon Graduate School of Business, University of Rochester, New York and Bachelors of Engineering from Pune University.

The issues addressed by the speakers were varied -

- The seminar was mainly focused on how to create opportunity for oneself as businessmen and entrepreneurs.
- Young Indians as entrepreneurs.
- Understanding the various multiple variables and turbulence in the environment (market) and business.
- Discussion on the causes of this turbulence in the market and understanding the unexpected behavior of the buyers and sellers.
- Discussion on habits and behavior of customers.
- How technology works to understand new needs and how to satisfy customers.

For a start, this seminar also enthused the students to rev up their organizational skills and if the success of the program is anything to go by, the students of IICS have great potential to reach heights untouched before!





Glittering 9th Indira Awards for Marketing Excellence Presented

As the lights dimmed and the guests were seated, it was time for the 9th Indira Awards for Marketing Excellence, to get underway at the hugely attended event held at the Indira National School in Wakad. Post the welcome by the Chairperson Ms Tarita Shankar and Group Director, Mr Chetan Wakalkar, it took off with Dr RL Bhatia, CEO, Fun and Joy at Work, taking the audience through the programme with an introduction to the concept of the awards function - Sublime Brands. The awards event, which has grown in stature from an informal function in a closed auditorium for about 250 guests, to the sprawling lawns of the Indira National School, which too seemed too small to accommodate the over 4000 students, award winners, staff and invitees to the function signifying the growing credibility of the Indira Awards among the discerning audience.

The Chief Guest at the function was the Maharashtra State Minister for Co-operatives, Employment Guarantee Scheme, Agricultural Marketing and Parliamentary Affairs Shri Harshawardhan Patil. Fittingly, the function began with the Award for Lifetime Achievement which was appropriately given to Mr B. G. Shirke, the doyen among construction specialists in Pune, known for his pioneering work in the area for over 50 years in India and abroad. Mr Shirke gave an extremely appealing acceptance speech which dwelt heavily on the need to protect and nurture the environment.

Speaking on the occasion, Mr Patil exhorted the students to follow the example of the Award Winners by adopting their inspiring qualities of leadership, hard work and determination and to abjure temptations of the day and age.

Notable winner of the Outstanding Award for Contribution to Advertising was Mr Prahlad 'Robin' Kakkar, MD and CEO, Genesis, today's ad guru, who disclosed, tongue in cheek, that he was the most 'feared' ladykiller when at Fergusson College as an undergraduate in Pune!

The awards were presented in two categories – the Awards for Marketing Excellence and the Indira Excellence Awards which recognized the value of brands/individuals in promoting them and the organisations that have consistently upheld the spirit of youth through providing employment opportunities to them!

The highlight of the day was the contribution by the students of the Indira National School through their graceful dance and their presentation of the hummable Joy of Sunshine by AR Rehman. However, the icing on the cake was the energy, the talent and the immense popularity of Sufi Singer Kailash Kher, who with his band, Kailasa, literally seemed to set the stage on fire with his rendition of some of his best known numbers, both Bollywood and non-filmi. The young crowd seemed to go into raptures acknowledging the creative hold of the singer on them!



Marketing Excellence Awards





Marketing Excellence Awards

INDIRA AWARDS FOR MARKETING EXCELLENCE

Brand Super Achiever Award

- Lifetime Achievement Award — Padmashree B G Shirke, Chairman, BG Shirke Construction and Technology Pvt. Ltd.
- Outstanding Contribution To Advertising — Mr Prahlad Kakkar, MD & CEO, Genesis Film Prodn. Pvt. Ltd.
- Brand Leaders Of The Year —
LG Electronics, Gili Ltd., Reliance Consumer Finance, DHL Express, Grasim Industries, JK Ansell, Safexpress, Larsen And Toubro, Roamware, Bharat Matrimony, Ceat, Fevicol, Gloria Jean's Coffee International, Reliance Mutual, Oxemberg
- Best Airline Of The Year — Kingfisher Airlines
- Best Marcom Professional Of The Year — Mr Deepak Jolly, Coca Cola India
- Marketing Professional Of The Year Pharmaceuticals — Mr Arun Khanna, COO, Emcure Pharmaceuticals
- Outstanding Marketing Professional Of The Year — Mr Rahul Saigal, CMO Aircel
- CEO Of The Year — Allen C.A. Pereira, Chairman & MD, Bank of Maharashtra
- Young Achiever Award — Ashish Shah, Sr Manager, Corporate Brand, Wipro
- Best Hindi News Channel Of The Year — Starnews
- Ad Agency Of The Year — Group M
- Strategist Of The Decade — E Sudhir Reddy, CMD, Ivrci Infra And Projects
- Best Customer Loyalty Program Award — I-Mint
- Most Popular Internet Brand Of The Year — Yahoo!!

INDIRA EXCELLENCE AWARDS — EMPLOYER OF THE YEAR :



Tulip Telecom (Telecom)
 Arshiya International (Logistics)
 Future Learning and Development Ltd. (Retail)
 Bajaj Allianz Life Insurance (Insurance)
 Helix Technology Solutions (e-Learning Sector)
 Oriental Bank of Commerce (Banking)
 KPIT Cummins Infosystems Ltd. (IT)
 Colgate Palmolive India (FMCG)
 Cadbury India (FMCG)
 E-Clerx Services (KPO)
 Hindustan Motors (Mfg.)
 ICICI Securities (Financial Services)
 Oberoi Hotels and Resorts (Hospitality)
 Kalpataru Ltd. (Real Estate)
 Drive India Enterprise Solutions Ltd. (Logistics)



Marketing Excellence Awards





Accolades all the way for Indira at Dainik Bhaskar Awards at Taj Land's End, Mumbai

The 'Dainik Bhaskar B-School Leadership Awards' event was held on February 12 at Taj Land's End in Mumbai. The awards felicitated business schools for creating leaders who play a crucial role towards the advancement and development of our nation.

Sam Samuel, Education Head, Dainik Bhaskar Group, said, "There are many business schools that have worked tirelessly in creating infrastructure, industry synergy and are adapting very innovative education processes. Meanwhile, students do not have the criteria of evaluating these institutes beyond the normal suspects. Through these awards, we aim to bring to the students our evaluation of these institutes."

According to Dr. R L Bhatia, CEO, Fun and Joy at Work, "Dainik Bhaskar has done a commendable job of initiating these awards since education is crucial for the growth of an

economy and B-schools bestow the essential education to make future leaders. These awards are a unique way of saluting those who churn out future leaders."

The awards jury panel included Harish Mehta, Chairman and MD, Onward Technologies Ltd; Prasad Medury, Managing Partner, Amrop International; S V Nathan, Director, Deloitte; R L Bhatia, CEO, Fun and Joy at Work; Saagarika Rai, Head, Reliance Big Entertainment; and S K Dutt, Director, ABG Shipyard.

At the ceremony, which was attended by the who's who in management education sector. Chief Guest was the Prime Minister of Bhutan, Lyonchen Jigme Yoser Thinley, who gave away the awards. Out of the 2,400 B-schools in India, 120 institutes were short-listed and 40 were selected for awards under various categories.

The six awards that Indira Group of Institutes received at the DNA's Innovative Business School Awards and Dainik Bhaskar B-School Awards are as follows:

Award Details	Awarded By	Awarded to
B-School who Innovate in Teaching Methodology	DNA Innovative B-school Awards	Indira Group of Institutes
Innovation in Building Academic & Industry Interface	DNA Innovative B-School Awards	Indira Group of Institutes
Outstanding B-School (West)	Dainik Bhaskar B-School Leadership Awards	Indira School of Business Studies
B-School with Excellent Industry Interface	Dainik Bhaskar B-School Leadership Awards	Indira Institute of Management Pune
B-School with Industry Related Curriculum in International Business	Dainik Bhaskar B-School Leadership Awards	Indira Global Business School
B-School using Technology in Training Education	Dainik Bhaskar B-School Leadership Awards	Indira Group of Institutes



IICS Makes a Splash with Host of Events



IICS conducted a CII-Yi Seminar : as an active Student Net partner with Yi Pune Chapter. Young Indians (Yi) is an integral part of the Confederation of Indian Industry (CII) focusing on engaging youth and developing leaders for nation building.

The students visited Industrial Units near Pune, like Finolex Industries, to familiarize themselves with the functioning of corporate departments.

Corporate Workshop by Ms Sindhuja : Learning Consultant, Infosys Leadership Institute at Infosys, Pune, gave useful



inputs on GDs and discussed with the students the qualities expected in them by a recruiter AIMA – Business Decision Game that stretched the students' decision taking abilities and their understanding of complex business problems and likely solutions. This brought out the best in reasoning and analytical abilities of the eager beavers of IICS.





Alumni workshop – Mr. Avinash Sah - Executive HR, Cybage – To give the management trainees an insight into how to prepare for PLs and GDs with discussions of what to expect from the HR of Corporate for recruitment. Another alumni, Ms. Sangeeta Bhattacharya from UFO Moviez had an extremely interactive and fun filled session with the students regarding opportunities in the media sector.



Fundoo - 2010, the annual intra Group event at Indira Group was conducted this year by IICS with the usual gusto and verve that is associated with it. An event that brought out the creative and artistic leanings of the students in great measure.

IDEA WORKSHOP ON DEVELOPMENT AND DELIVERY OF SELF LEARNING MATERIAL

A training workshop was organized on 23rd & 24th April 2010 at I IDEA's Wakad Study Center in keeping with the mandate of the Distance Education Council, New Delhi of promoting Quality Education.

Indira International Distance Education Academy (I IDEA), Pune took the lead in organizing a training program for the faculty members from all universities and institutions from Western and Central India on "Development and Delivery of Self – Learning Material (SLM)" for program delivery through Open and Distance Learning mode. The philosophy behind organizing such a program was the fact that the ODL mode of program delivery is fundamentally based on the quality of the SLMs and efficiency of its delivery.

Prof. Manjulika Srivastava, Director and Prof. Swaraj Basu, Former Director - DEC and Professor at IGNOU conducted this training program. Faculty members from all institutes under Indira banner along with from 13 various institutes from Maharashtra, Madhya Pradesh and Rajasthan benefited from this training program.





National Conference on Rural Management

The Indira Institute of Management organized the NCRM – Current Trends and Future Prospects on 15th January 2010 to discuss and deliberate on the various issues that beset the rural community in India and the best ways to take on the challenges in the present globalised era.

It saw participation by a cross section of academics, professionals and specialists in rural management who brought their wealth of knowledge and experience to the table for the participants to take home and make a change in the lives of rural Indians.



SMU AWARD FOR ISCS

ISCS, Chinchwad, was felicitated with an award for overall performance for the second successive year, at the National LC convention of Sikkim Manipal University, Prof. V. G. Nulkar received the award on behalf of ISCS, Chinchwad.



B. D. Pande
The Origin and Development of HR
In TATA Steel (from 1907 to 1990)

Indira Management Review

The Indira Group of Institutes has established a reputation for flawless, quality higher education, be it in Management or Computers.

For some time now, we have experienced the need for a dedicated journal of Management to empower academicians, professionals and aspiring students of subjects like Human Resources, Logistics, Operations, Finance and Accounting etc. with updates on present day thinking and concepts, mainly to help the decision making process – be it at the Corporate Level or individual level. This need has been satisfied with the coming of the Indira Management Review, a biannual journal of Management academics that aims to decongest the information channels and present clearly, where Management is today, and where it is headed. It reports, analyses and suggests changes to established ways of thinking to lead the way into a more profitable and immensely satisfying Management experience. The contributors to the journal are from an array of institutions across the country and from abroad who have what it takes in terms of qualifications and first hand experience to talk with authority on their chosen subject. This can only further empower those desirous of perfecting the art and science of Management in a world getting increasingly complicated as India gets more integrated into the global corporate village.

Order your specimen copy of Indira Management Review. Better still, subscribe to it at Rs.400/700/1000 for 1/2/3 years. Contact us at vijai@indiraedu.com for more details.

