BOOK REVIEW

MAKING BREAK THROUGH INNOVATION HAPPEN

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About the Book:

The book is a six year joint discovery effort of Erehwon Innovation Consulting and Marico Innovation Foundation. Book attempts at identifying genuine Indian breakthrough innovations and and providing insights into their work and details what things they did differently to make the impossible appearing happen!

Book is aimed at consultants, entrepreneur aspirants who want to make it big in business through their innovation and self heroics. Book contain total eleven case studies of innovations are covered across industries and domains. The book provides light on how to challenge giants with legacy mindset; how to innovate for underserved market and corporate social responsibility.

Interesting thing about this book is that this book gives information on Indian achievers and knowledge about innovation scope and possibilities in India. Indian Intellect always question why should we copy American/foreign management mantras/philosophy. Not every dubbed holly wood movie is a sure shot hit! Also even regional dubbed movies are also not sure shot recopies of success. Then why should not India have its own knowledge bank of business. Book is good to see that knowledge about business achievements in India is getting written by people.

Book claims that I in INDIA would one day stand for Innovation and not inhibition or imitation. Book encourages Indians to turn their potential of "Juggaad" based mind-set into national advantage and is delivering high value and high impact innovations. Book stats that both Phillips and Microsoft are now using India as lab to create breakthroughs for the world, rather than merely replicating global success in India

Today, consultants face various complicated business situations. Case studies are the quickest method to be introduced of a situation, its complications, and attempted approaches in resolving them. But to be useful, the context of the situation should be relevant. Unfortunately, there aren't many interesting and engaging case study books available for Indian consultants and consultant aspirants.

Book has received some wonderful reviews, such as in words of Ratan Tata, 'This book... distinguishes itself by its detailed focus on the thought processes which inspired the breakthroughs. This innovative approach in storytelling enhances the book's inspiration quotient for the reader and challenges her or him to set out on a similar journey.'

Live case studies are very insightful and inspires corporate as well as individuals towards innovation and entrepreneurship and to take charge of what they don't like the world and change it to better. Book has stressed on orbit shifting missions and inspires company and individuals to copy the underlying philosophy of success that is innovation rather than processes and work methods.

CASE STUDY 1: DAINIK BHASKAR

Dainik Bhaskar example describes a radical approach to attacking well-entrenched incumbents. Combining the surveying and selling functions in a large. Well-trained and well-managed team meant that, in each new city. Dainik Bhaskar could immediately reach 200,000+ household with relevant product. However, in focusing on mindsets and philosophies, the book short-changes distilling the other key aspect of major innovations: hard, focused, purposeful work of which

Success Story: In 1996, the 41 year old Bhopal-based newspaper group Dainik Bhaskar had a circulation of 3,50,000 copies per day in Madhya Pradesh. By 2004, this had grown by more than 1000% to 3.5 million (2.3 million in Hindi and 1.2 million in Gujrati across 6 states in India: Madhya Pradesh, Chhattisgarh, Rajasthan, Haryana, Chandigarh and Gujarat), making it one of the top 25 dailies in the world. In a little over 10 years, Bhaskar has achieved circulation figures that others in the global newspaper business have taken nearly a century to achieve.

Survey based Strategy: Unlike a conventional survey that takes a random sample size and tries to extrapolate information into a broad need or trend, the Bhaskar group decided to meet a whopping 200,000 potential newspaper buying households in Jaipur! 700 Surveyors were used as integral part of their strategy. From there, the next idea was: "If we go back, can we ask them to sign up for an advance subscription?"Then, based on the feedback, the survey team went back to all 200,000 households to show them what they had created based on their feedback. By the end of the survey period, a total of 12,00,000 households had been contacted and feedback taken from them.

Product Innovation: This feedback was summarized and analyzed by the core team, the editorial, reporting and feature teams and conclusions were drawn about product content and layout.

Today the Bhaskar group has come a long way from being number 1 in Madhya Pradesh to becoming the largest read newspaper group in the country. It now has 8 titles in 3 languages across 9 states (Madhya Pradesh, Chhattisgarh, Rajasthan, Haryana, Punjab, Himachal Pradesh, Delhi, Gujarat, Maharashtra) and the Union Territory of Chandigarh, with a mammoth 4.4 million or 44 lakh copies (approximately) being printed every day.

CASE STUDY 2: ARVIND EYE HOSPITAL

The second case study is about Aravind Eye Hospital. Story of Dr. Govindappa Venkataswamy or Dr. V, who introduced assembly-line technique of surgery to increase the productivity of surgeons! As book mentions, what's remarkable about Aravind is that only 30 percent of its patient pays! The remaining 70 percent are treated free or almost free! It still makes 35 percent operating profit!

Aravind follows a unique business model. It takes its inspiration from STD-booth owners and Xerox-machine operators. Both these small businesses make money on numbers while serving the community's need for such services. Dr. Natchiar says, "We developed the philosophy that the content is more important than the container. Don't focus on the packaging. Remove all unnessary trims."

Creating new Products: Take the case of the Intraocular Lens (IOL). When this lens first appeared, Dr. V wanted it for his patients in keeping with his commitment to provide world-class eye care. The lenses were prohibitively expensive, though. At \$100 each, they were way out of most Aravid patients' budgets. Dr. V and his team decided to manufacture them in-house. They had no idea about the technology, the equipment or the process. But they decided to go ahead anyway! And Aurolab was conceived.

They roped in partners to make this happen and a number of voluntary eye care institutions came in - the Seva Foundation, the Sight Savers International, and the Combat Blindness Foundation, to name a few. It became a cause. The technology was obtained from an American company with a 1-time fee for technology transfer. Aravind now manufactures around 1.2 million lenses a year. An average ophthalmologist operates on 250 to 400 patients a year. An Aravind ophthalmologist using McDonald's-inspired assembly line technique operates on 2000 patients a year.

Based on research by the Royal College of Ophthalmologists, Aravind's postoperative complications are lower on many comparable parameter than for hospitals in the UK. Aravind Eye Hospital is currently doing 286,000 surgeries a year. Dr Aravind talks about scaling this to one million by 2015.

This uncannily echoes Goethe: "Boldness has genius, power and magic in it. Begin it now." At Aravind, everything is measured not by how much has been done but by how much remains to be done. Its an aspiration like this that has placed it firmly on the global eye map. And today they are in the position to make a truly global impact. To make a difference to a billion lives!

CASE STUDY 3: CAVIN KARE

Introduction: C K Ranganathan started Cavin Kare in 1983 with seed capital of \$15,000 and is today giving competition to giants worth billions. Cavin kare is \$750 Crore company – all from internal accruals. In 2004, Economic Times voted Ranganathan "Entrepreneur of the Year". Ranga says he started with a rented house-cum-office for \$250 per month, and bought a shampoo packing machine of \$3000. Chik shampoo was named after his father, Chinni Krishan. It took him three years to get the first loan because he did not have any collateral.

Business Model: Ranganathan's key strategy was build around repeat customers. In 1988, to address this problem he came up with innovative marketing idea of giving one sachet of Chik shampoo free for every four empty sachets of any shampoo that people brought back to the retailer. This scheme was first of its kind and took market by storm. Later, he started giving a free sachet of chick shampoo free for every four used Chik sachet. His sales went up from 3 lacks per month to 12 lacks per month. Soon it Chik had annual turnover of 400 laky and become second largest selling shampoo in Tamil Nadu.

Strategy for Market Expansion: Shampoo was largely an urban phenomenon. With 72% of India's population in rural areas, only 8% penetration of shampoo was there. Ranganathan introduced fifty paisa sachet and 6 Bottle to tap the huge untapped market and his market share increased from 5% to 22% within two years by 2000-01.

Ranga's New Products: Ranga launched Meera Shampoo of 2 with Shikakai in Tamil Nadu, as shikakai is associated with hair nourishment here. He launched Meera with hibiscus leaves in Kerala, in Karnataka he launched a low cost version Karthika at 1. He also introduced Perfume Bottle at 10 "Spinz" and fairness cream "Fairever" for premium segment.

Cavin Kare Today: Because of these Initiatives CavinKare is larges overall hair wash company in south India with Hindustan Uniliver and P & G behind them. Today CavinKare is a 750 Crore company. Ranganathan used his insight to carve a space for himself in a market crowded with international players. He defeated Billion Dollar Business Giants with his ideas!

CASE STUDY 4: ITC – eCHAPUAL

Introduction: ITC is a large Indian conglomerate with diversified business in its packaged consumer goods, hotels, paper board and packaging, information technology and agriculture business. ITC's IBD (International Business Division) created new opportunities for itself and grew from \$300 Crore in 1999 to \$3000 in 2008. In 1999, their small group came out of Project Symphony which has four initiatives for commodity training business. They were (1) Customer Relationship Management (2) The farmers and supply chain initiative (3) The Risk Management Initiative – Ensure and (\$) The learning initiative – Manthan.

Supply Chain Problem: In India farmer cannot sell directly to private party nor can anyone buy directly from farmer, other than within the four walls of government regulated market yard called the "Mandi". Mandi System was originally created to ensure that unscrupulous buyers do not cheat farmers but over the years, Mandi has become intermediary's oligopoly. Farmers were also being cheated by intermediaries instead. ITC wanted to make difference to the farmers, as well as benefit by getting quantity and quality it wanted from farmers.

e-Chaupal Solution: In October 99, first physical Chaupal was set up to interact with end farmer where information, knowledge and inputs were brought together on one platform. By Dec'99 team decided to make an e-Chaupal idea and tied up with ITC Infotech to make this initiative reality. In Feb'00 Chaupal website was a working model. A web portal in local language, with PC, UPS and Internet creating a two way channel between ITC and villagers.

Operational Strategy: In each chaupal, a locally trusted farmer was invited to become sanchalak or coordinator, acting as an interface between the ITC and the farming community. The computer was located at sanchalak's house, who helped his village and also neighboring village in accessing prices for their crops – Global prices, ITC prices and prices of other Mandi's, help control farming practices etc. **Product Innovation:** Effort paid off in domestic market as ITC was able to customize its product to local tastes, e.g. Ashiwrad Atta in Delhi was different blend of varieties for South India.

Impact of E-Chaupal on ITC: Business impact of e-chaupal has been huge. ITC-IBD turnover has grown from \$300 Crores to 3000 Crore and in seven to ten years it will be more than ITC's current turnover of \$10,000 Crore. Before e-Chaupal IBD was just another non-core activity. Today IBD is one of the core businesses of ITC and has created multi category distribution highway. Next planned stage for e-Chaupal is to help villages get services like health advisories, education and e-governance.

CASE STUDY 5: BOSCH INDIA

Stringent emission norms for diesel engines currently required extensive engine modifications to enable them new world emission norms. The team from Bosch India reframed this challenge: Rather than make major and expensive engine modifications to enable it to interact with the high-pressure pump, why not make modifications to the pump to enable it to interact with the existing engine and give the same results.

Innovative Pump: The expensive engine modifications would cost anywhere from Euro s3 million to Euros 20 million. But with Bosch's Innovation, all that was required was a 20 Euro pump called the PF-45 that can be modified to fit any existing diesel engine.

Bosch applied their resources required to develop such a pump. While the developmental timetable has been chalked out, there were organizational, human and technical challenges that the team faced. Often, Indian arms of MNCs are often seen as minor operations that tinker around at the margins. Too often in the Indian arm of an MNC, R&D is a misnomer.

Technical Challenge: The technical challenges were also tremendous. The key constraint was that it would have to be a single-cylinder pump that fitted into the existing engine block and created no changes or modifications in the existing engine. Finally, the radical pump was created. It was developed within budget and within time. It collected a patent along the way and took constant innovations at every level and in every part of the pump as each new challenge required an innovation to crack it.

Impact of the Innovation on Industry: The impact has been tremendous. Business has boomed. And since the pump is now so incredibly simple, the assembly, installation and maintenance costs have crashed. The potential impact on the diesel engine industry is huge. Engine manufacturers and commercial vehicle buyers have got a new lease of life as they do not have to go in for expensive engine modifications to meet the next level of emission norms. The India competency centre has suddenly become extremely visible not only to the Bosh world, but to the entire diesel world.

Bosh proved that India's R & D can conceive, develop and manufacture terrific innovations. The mindset shift has been from "we are just applicators for Bosch Germany's products, therefore make minimal tweaks after extensive permission-seeking" to "we create technology that nobody in the world has done. We are thought leaders."

CASE STUDY 6: TRICHY POLICE

India as a country is global most affected by terrorism. Terrorist strike with impunity in city after city. Deaths in India outnumber those of any other country. But there are pockets that exist in the country where crime and terror have been contained. Trichy police have dealt with and contained terrorism and it has not happened with more equipments, cops or laws. Instead through les policing, less equipment and fewer or same laws.

About Trichy: Trichy is a city of 24 lakh. Ideally number of cops required for this kind of population is 7000 but police force in trichy did it with 260 constables. Trichy is an unusual mix of communities one third – Hindu, one third – Muslim and one-third – Christians. In 1999 Trichy was emerging hot bed for fundamentalism. At this point of time, J K Tripathy an IPS took over as commissioner of police.

Tripathy's Innovation and work style: Setup human and non human intelligence infrastructure. He experimented with idea of community policing model Police is law enforcing body, they gather their power through constitution. Tripathy changed perspective of police from power to public servant. He moved from department first to purpose first, problem solving approach all across the department.

Making a good team: Tripathi shortlisted genuine officers under him and made his core team. He involved them in problem solving and decision making. Constables were called Beat Officers and were given walkie-talkie and were given full responsibility of their allotted area. He himself took responsibility and flashed hi mobile number across the city through media to ensure he is available to every citizen for any problem.

New Statistics show Holistic Progress: He promoted Holistic perspective towards community and civic policing and police became closely knit with the citizens. His strategies introduced positive results – tangible as well as intangible. Total reporting of crimes dropped from 11,280 to in year 1999 in his first year to 8005 and by 7750 for second year. Even after 7 years, reported crimes are below 1999 mark

Within two years of Tripathy's taking over Trichy was transformed. As many as 261 dreaded criminals were nabbed and crime rate dropped by 40%. Today, a decade later, Trichy is a city at peace and lighthouse for communal amity. Trichy experiment scaled up to Coimbatore and to an extent in Chennai. Tripathi today is inspector general of police based in Chennai.

CASE STUDY 7: CHOLA VEHICLE FINANCE

Chola Vehicle finance is a division of Cholamandalam Investment and Finance Company within the billion dollar murugappa group of companies that is into cross section of companies from finance to fertilizers to steel plants. From 1998 to 2002 Chola Vehicle Finance grew from an asset base of \$140 Crore to \$800 Crore. Today it has an asset base of \$4000 Crores. P N Vasudevan, the head was of the opinion that rather than opening new branches for growth, he would have to get existing branches to take on more challenging targets. However following the usual ways is not letting him achieving targets.

To take his organization to next level he took three steps: (1) Setting up dream meeting of high ambition (2) Removing escape button so no looking back and (3) Structural changes – internal as well as external.

First Step - Dream Meetings: He invited all his teams and encouraged them to break away from past, stop looking at what is done in previous year as reference point as charting for future. Meetings inspired people to explore market potential as their aspiration. Impact was that every branch now wanted to go out and capture market.

Removing the Escape Button: He further made public statement of targets of his branches and dreams/ambition statements were subsequently placed everywhere in the branches for visibility. Results: Soon 12/21 branches achieved its target and chola registered 21% of growth rate in first year. Followed by growth rates of 60, 85 and 80% in subsequent years.

Internal and External Changes: Vasudevan created a paradigm shift in the industry. He shifted from standardized rate of interest to weighted average interest rate. Next logical step was to disburse interest based on customer profiles. Company moved from "Car Financing only" to Tractors and Two wheelers financing business. Chola was first private sector player to enter Tractor Financing. Chola used franchising method rather than direct sales agent. Their franchisee was businessmen who sold multi brand vehicles.

Vasudevan moved to DCB bank as executive vice president and head consumer banking in year 2005. In Jan'08 Vasudevan set up "Equitas" Microfinance along with directors of Cholamandalam and has several firsts to his credit. Equitas is today fourth highest capitalized MFI in country with market capitalization crossing \$200 Crore. It focuses on urban poor rather than poor poor and has acquired 100,000 clients in 9 months touching 600,000 families in first year of operation.

CASE STUDY 8: TITAN EDGE

We all know Swiss are masters in watch making. If Swiss says something cannot be done, everyone else agree. But, there was one team in India which transformed the thinking from "If Swiss cannot do, we cannot do". That is how, Titan Edge, the slimmest water-resistant watch in the world was innovated! This was achieved by R&D team in Titan headed by B.G. Dwarakanath.

Creating worlds slimmest water resistant watch (maximum of 3.5 mm thick) was conceptualized, designed, developed and manufactured in India. Today Titan's "Edge" is success story which has contributed to around 6% or \$55 Crore of Titan watches turnover of around \$318 Crore last year and to date has sold over 500,000 watches since its launch.

Watches were put together in three main departments: Movement manufacture, case manufacture and assembly. Each department enrolled additional members for R & D team. Challenges included bringing down movement, slim battery, thin strap, thickness of glass and everything with a Swiss like perfection.

Prototype Testing: The prototypes of the watches were sent for testing in Switzerland for stringent tests like high and low temperature test, temperature shock, vibrations, shock test, bump test and drop test etc. After all these tests, Titan Edge was certified as reliable and water resistant up to thirty meters.

One interesting note is the way Dwarakanath himself tested the watch. He calls it Bangalore-Hosur road test! He ties the watch to the shock absorbers of his car and makes several trips on the terrible roads between Bangalore and Hosur, covering 200 km!

CASE STUDY 9: SHANTHA BIOTECH

Varaprasad created the biotechnology revolution in India. In 1991, when nearly 340,000 people were dying of Hepatitis B in India every year, because of the cost of the vaccine, at 750 per dose and nearly 2250 for an entire course of three vaccines and prohibitively expensive for vast majority of Indians. Varaprasad, crashed the vaccine dose from 750 to 50. This made global price slash and today, vaccine is sold for 15. Varaprasad in his dream, humbled a powerful MNC and impacted global prices of Hepatitis B vaccine.

Initial Work: His initial work stared with Osmania University in Hyderabad, when Dr Malla Reddy, Vice Chancellor of Osmania was impressed with his cause, energy and passion. Varaprasad spent ₹ 500,000 to upgrade the university's microbiology departments laboratory and in return would get full use of the lab. For two years there was not success. Even a chairman of Nationalized Bank told him to "Get out and stop wasting my time". Investment came from unexpected source, Oman's foreign Minister met Varaprasad and got him 190 lakhs loan from Bank of Oman on liberal terms. By 1996, his drug results were out and were proven successful by Nizam Institute of Medical Sciences in Hyderabad.

Challenges: Included Indian bureaucracy, Competition from MNC, Rumors about vaccine being unsafe and what not. However, his vaccines reached retail shelves for \$180\$. Shanvac – the vaccine earned revenues of \$8 Crores in first six months, \$23 Crores in first year and \$36 Crores in third year. Number of Immunizations increased from 80,000 to over 100 million per year.

International acclaim: Today, Shanvac is a vaccine that is being used by WHO and is also selling in the US. Shanvac is first WHO pre qualified Hepatitis B vaccine from India. At one point, 52% of UNICEF vaccines were supplied by Shantha

Core philosophy of Shantha Biotech remains – Human health care produust affordable to the common man. And the common man in India is different from the common man in America. A French company called Merieux Alliance recently picked up stake in Shantha by buying out Omani Stake holder's shares and Shantha is now part of Merieux Alliance and continues to be headed by Varaprasad Reddy.

CASE STUDY 10: SURAT CITY

When SR Rao took charge of Surta's Municipal Commissioner in May 1995, he inherited a 400 year old city that had been afflicted by disease of middle ages – plague. Monsoon floods and the filth in Surat's waterlogged streets reportedly caused the plague of Surat in Sept'94. Surat was back to being as an INTACH survey in Nov'94 was one of the filthiest cities in India. Half of malarial deaths in Gujrat came from Surat alone. Its open sewers and filthy streets were on disaster waiting to happen. Again in 1995 with monsoon approaching the state seemed set for history to repeat itself.

Statistics of the New Transformed Surat City: Within two years of Rao taking over, INTACH rated Surat and India's second cleanest city behind Chandigarh. Malaria cases in Surat came down from 22,000 in 1994 to 496 in 1997. Population covered in sanitation increased from 63% to 97%. Population covered in drinking water increased from 60% to 95%. Clearange of Garbage went up to 98% daily to earlier 40%, 300 kms of new roads were laid and street lighting went up to 98.2%

Working Beyond Barriers: Rao disbanded functional departments. Rao also introduced a time-based citizen complaint redressed system and tracked it online. Rao also focused on the twin principles of discipline and reward: discipline from the top, reward from the bottom. To be effective, discipline must be imposed top down. To recognize good workers, he published their photographs in newspapers.

Public Campaigns on Hygine, Corruption Free Public Service: He launched what he called the Surat First campaign to recreate surat. He began punishing the city's most powerful individuals while simultaneously focusing on slum cleanliness, sewage, water and sanitation services. For discipline, Rao took immediate action in three areas: illegal construction, poor hygiene standards, and property tax evasion. He demolished an illegal building of the most powerful and politically connected man in Surat.He took disciplinary action against 1200 employees ranging from sweepers to officers. Rao imposed a fine on those who chucked garbage on the roads.

Financial Capacity Building: He did four major things: (1) Plugged loopholes in property taxation; (2) Plugged loopholes in octroi collections; (3) Computerized accounts and brought in commercial accounting norms as against government accounting norms; and 4) Adopted a profit centre approach to bring in efficiencies in service delivery

Rao was in Surat for just 20 months before he was transferred. Yet his systems and results have continued more than a decade later.

CASE STUDY 11: SU KAM

Su-Kam and its founder managing director Kunwer Sachdev are a textbook example of what it takes to create not just a business, but an industry. Beginning with nothing more than an idea and \$\frac{1}{2}10,000\$ as capital, today Su-Kam is the biggest Indian corporate in the power backup industry. Last year they had revenues of around Rs.600 crores.

Creating a New Industry: Since India is perennially short of power, technically every single household in India could be sold an inverter! Also, Indian power conditions were so bad, no inverter imported from outside could work effectively in India. Finally, because the industry was made up of a number of small local players, nobody owned the market. He decided to enter the inverter and power backup industry. Sukam Inverter was launched.

Innovation in Sales: In 2000, Kunwer was the first person to put up banners of Su-Kam on almost every single dhaba or tea shop that lined the length of all major highways. This gave Su-Kam immediate visibility. He put the names of the dhabas too on the banner / board so that not only did Su-Kam get publicity, but the individual dhaba owners got it as well. Also, Su-Kam was also the first in the power backup industry in India to start strip advertising in the classified columns to save costs. He'd take up nearly half a page of classifieds and make a large "Su-Kam" out of it as a half-page of classifieds was much cheaper than buying a regular half-page ad.

Continuous R & D for Product Innovation: After the MOSFET inverter in 1998, in 2001, Kunwer launched India's first sine wave technology inverter. Launched in 2002, the plastic body inverters were not just unique in India, but also in the world. All inverters at the time were made of metal, because the temperature on usage would go up to 120 degrees and there was no other material that could withstand such high temperatures. It was only a matter of time before India and the world saw the first-ever "Home UPS".

A UPS was taxed at 4%, while an inverter was taxed at 12%. By creating home UPS, Kunwer came under the 4% bracket. Sukam also create Softwares for Power Management – Power doc Monitoring and Recall Software.

Today, Sukam has a presence in more than 50 countries, employ 1200 people across 23 offices, have 6000-plus network partners, and aspire to touch 50,000 network partners or dealers over the next 3 years. They have more than 50% market share in the organized sector.