

# Tata Consultancy Services

## Inheritance of Management Philosophy

*(Viewpoint of a Management Anthropologist)*

---

### Dr. Noriya Sumihara

*(Rendered from the Japanese)*

#### **About this article**

This article appeared in the *PHP Business Review* (May-June 2011), a bimonthly business magazine published from Japan. Peace and Happiness through Prosperity (PHP) is a Foundation established through the personal assets of Mr. Konosuke Matsushita, the founder of Panasonic.

#### **Author Profile**

Dr. Noriya Sumihara (male) is a Business (Corporate) Anthropologist and Professor at the International Centre for Regional Studies, Tenri University, Nara, Japan. He obtained his Doctorate (1992) and MA degree (1984) from the New York University, USA. He completed his Bachelor's degree (1981) from Kobe University, Japan.

# Inheritance of Management Philosophy

## *(Viewpoint of a Management Anthropologist)*

No. 15

Tata Consultancy Services (TCS)

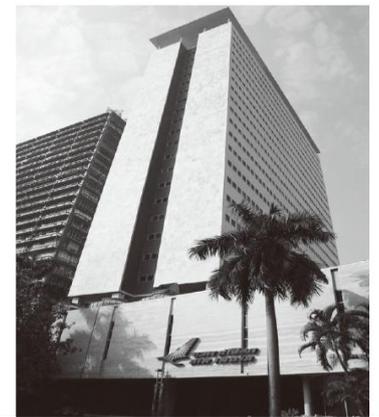
Part II

Dr. Noriya Sumihara

Professor at the International Centre for Regional Studies, Tenri University, Nara,  
Japan



1 (Left), Mr. F.C. Kohli, Professor Izumi Mitsui (Nihon University), Associate Professor Masayo Fujimoto (Doshisha University)



Air India Building (Mumbai), the headquarters of TCS in the initial years of its establishment.

### **“Using IT for the industrial revolution of modern India”**

#### **----- Philosophy and Inheritance as models of “Comprehensive Rationalism”**

Tata Consultancy Services (TCS) was launched in Mumbai, with a staff strength of less than 10 persons, as the first Indian IT company in 1968. Currently, it has approximately 180,000 IT consultants in more than 250 locations across 53 countries in 5 continents and a gross income of US Dollars 6.3 billion in the financial year ended on March 31, 2010. TCS is not only the largest in Asia, but a gigantic global IT company, which has entered the Global Top 10.

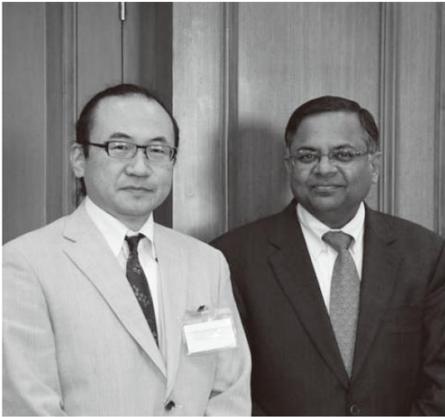
Since TCS does not deal much in hardware and its products are software and services, which are intangible, it is difficult for the general consumer to see it; but its business, management policy, the current status of the living management principles, which form its background, are worth noting. In particular, the vision of Mr. F.C. Kohli (1924~)--who nurtured TCS from the time it was founded and is also known as the Father of Indian IT--is internationally noteworthy as a philosophy that went well beyond a general company's objectives. Mr. Kohli was praised for that achievement and received several awards, including the third most prestigious award, the Padma Bhushan, which was conferred upon him by the Government of India.

The Tata Group, the parent organization of TCS is India's largest conglomerate. At present, the Group—with major operations in seven types of industries such as steel, power, automobiles, etc--has approximately 100 companies and 400,000 employees in 80 countries across the globe. It is a mammoth global enterprise, with a revenue of approximately US Dollars 71 billion for the year 2008~2009. (Of this, approximately 65% was obtained from countries outside India.)

The Tata Group was founded in 1868, the first year of the Meiji Era in Japanese history. It is a conglomerate that represents India. Right from the time of its founder, Jamshetji Tata (1839~1904), the industrialist who earned his place in history, to the present 5<sup>th</sup> generation Chairman Mr. Ratan Tata (1937~), the Group has always continued to have high ethical standards. The Tata Group has generously contributed to the development of the Indian nation and society at large. Regardless of the environment, be it the long colonial rule up to 1947, or the extremely restricted economic environment--the planned and controlled socialist economy (1951~1991) propagated soon after independence--or the era of cut-throat global competition following economic liberalization (1991~) up to the present, the Group has been a catalyst for socio-economic change in the country. It is even called "India's pride". In the latter part of this article, I would like to look at how the Tata Group is growing as a cohesive global enterprise under the guidance of the present Chairman, Mr. Ratan Tata, while sustaining and growing the basic tenets it has inherited from its founders.

From the Tata Group's four main pillar industries (steel, power, automobiles, information industry--IT), this article focuses on Tata Consultancy Services Limited (TCS), the IT company that has shown a remarkable growth in its 40+ years of existence. TCS is not just a large enterprise, but a pioneer that has developed India into one of the greatest IT powers in the world along with America.

I had the opportunity to interview and listen to the ideas of some of the key persons in TCS at the beginning of this year. This article is a compilation of the interviews, which I conducted during my three visits to India, as well as the culmination of the research of the information available in English and Japanese.



Profile N Chandrasekaran

Born in 1963. Did his Bachelor's Degree from Coimbatore Institute of Technology and Master's from Regional Engineering College. Joined TCS in 1987. Appointed as CEO in 2009 (One of the youngest CEOs in the Tata Group). Chosen as India's Best CEO in 2010 by Finance Asia Magazine.



Profile S. Ramadorai

Born in Nagpur, India in 1944. Did his Master's in UCLA after passing out from Delhi University and IISc. Joined TCS in 1972. Appointed as TCS America GM in 1979, CEO in 1996 and is currently Vice Chairman since 2009. Received Padma Bhushan Award (2006) from the Indian Government and appointed as Adviser to the Prime Minister in 2011 for the National Skill Development Council.

## **The three successive CEOs of TCS: Mr. F.C.Kohli, Mr. S.Ramadorai, & Mr. N. Chandrasekaran who have spun India's IT history:**

I'm grateful to Mr. Masahiko Kaji (article published in Jan-Feb 2011 issue of this magazine) of TCS Japan (the Japanese arm of TCS) who introduced me to all the three stalwarts of TCS at its Corporate headquarters in Mumbai early this year. I met the first CEO of TCS, Mr. F.C.Kohli (CEO: 1969~1996, Deputy Chairman: 1994~2000), his successor, Mr. S. Ramadorai, who is currently the Vice Chairman (1944~, CEO: 1996~2009, Vice Chairman since 2009), and Mr. Chandrasekaran (herein after referred to as Mr. Chandra) who has taken over as CEO from 2009 (1963~, CEO: 2009~). Each of them has established a global presence of Indian IT and not just of TCS, and it would not be an exaggeration to say that their contribution has been historic.

As one of the proofs, in mid February this year, when I was in the midst of writing this article, I heard the news that the second CEO and the current Vice Chairman, Mr. Ramadorai, has been appointed as the Advisor to the National Skill Development

Council, which is under the direct control of the Indian Prime Minister; moreover, Mr. Ramadorai was given the rank equal to that of a Cabinet Minister. During the interview, when I broached this topic, he said, “For the industry to grow, the appropriate human skills must be developed. In our IT field, which has been involved in training professional engineers for a long time, we have matured and have many achievements. I think we have also become a model for other industries.” This is a proof that even the Indian Government has a deep trust in TCS. The Indian media also welcomed the news of him being entrusted with this responsibility by the Government. Under the guidance of Mr. Ramadorai, TCS entered the global Top 10 in the year 2010. With this achievement, not only his management skills, but also his belief in nurturing human resources was highly appreciated.

Even the current CEO, Mr. Chandra, who has served TCS for decades, has a number of achievements to his credit. He was chosen as India’s Best CEO of the Year 2010 in the vote of investors and analysts conducted by Finance Asia Magazine. His capabilities are highly appreciated both domestically and internationally.

It would be difficult to talk about the entire history of TCS, spanning over 43 years in this article. However, I’ve made an attempt to trace its history from the beginning, just so as to know what shapes the character of a company of TCS’s stature, and in particular, the vision of Mr. Kohli in starting a new venture using computers way back in 1968.

Before I go any further, I’d like to explain my basic premise or viewpoint, at the time of compiling this article, in terms of the theme of inheritance of philosophy.

## **Various aspects of the spirit of rationalism as “Human Nature”**

Needless to say, human beings try to behave rationally in their daily work, in the various activities they perform, or even in enterprise management. They try to eliminate waste, move efficiently and value resources, such as money and things, as far as possible. This is one of the important basic abilities given to human beings. Had this ability not been there, the existence of individual or family life, let alone that of business organizations, would not be possible. In order that human beings live and behave like humans, the fact that they make use of the ability called “rationality”, which is peculiar to human beings, is obvious.

Although rationality is just a word, it has various shades of meaning and can be interpreted differently by different people, given the context. For example, I once lived in Nara and often saw deer in the Nara Park. Even if I gave a deer a 10,000 yen note, it would either ignore it or think it was just a piece of paper and might end up eating it. It would not think that the 10,000 yen note, could fetch him victuals from the nearby deer biscuit shop. After watching the deer, I bet we'll end up thinking "how stupid" the deer are. But, deer too have a genuine "rationality"; the very fact that they can chew the 10,000 yen note, because it is paper, makes proper sense to them.

Applying the same "rational" vein, even a child would take the "get more" rational act by buying snacks with the note. But, if we think to what extent do we humans actually behave "rationally" in the various aspects of our daily life or in shaping our vision, most of us would have to admit that it is not to a great extent. Taking the example of the deer again, after substituting the 10,000 yen note with a large number of deer biscuits, the deer will not eat all of them alone, but it will give a part of them to the other deer and expect a return in future – this is another level of "rationality". In this way, "rationality" also has several aspects. If we take this into account as we go along, at least, I myself will not have the confidence to laugh at the deer which ate the 10,000 yen note.

Even if you know that there are various levels (from low to high) of rationalism, you may not be able to come up with the appropriate rationality all the time. Other factors such as value system, belief, and socio-cultural environment would also need to be taken into consideration to determine if the level of rationality is "low" or "high". While I might want to categorize it as "low level" or "high level", but, in a broad sense, I'd like to state that it is "reasonable" thinking that enhances "human nature", which makes us different from animals and endows us with a "high level" rationality.

## **Humanity as one more aspect of "human nature": The idea of "Comprehensive Rationalism"**

If we delve further into the characteristics of "human nature", or "the ability that makes a human being a human being", we will find that we humans differ from animals in that we have the ability to sympathize with others--even with complete strangers. We can rephrase this as "humanity". The "rationality" based on profit and loss calculation is a human feeling of a different dimension. In the corporate world, "humanity" may sound like an out-of-place or extinct word, but if it does not exist in corporate activities, and if the human nature is confined only to the ability to calculate profit and loss, we would

not be able to distinguish between the world of humans and those of beasts.

Both “rational thinking” of profit and loss calculation (economic rationalism) and “humanity” have characteristics that are peculiar to human beings, and we consider the two together comprehensively constituting “human nature”. But, often, the word “rational” is perceived as cold in some ways with an abstract quality to it. On the other hand, “humanity” goes beyond calculations and is warm, with a naïve, wet and emotional quality attached to it. Together, “rational thinking” and “humanity” are often considered as conflicting concepts. But, the fundamental meaning of “rationality” is “making sense” and it does not exclude humanity. With this explanation, I would like to consider “high level rationality” as “sensible” action or thinking, with “humanity” inextricably linked with it.

In the real world, however, the way one thinks and acts, with what level of rationality, depends on their life and circumstances, and this is applicable not just to individuals, but to organizations as well. Of course, I do not know whether or not human beings always struggle to be ideally at the “highest level of rationality”, but in various aspects of human life, to the extent possible, it would always be better to be conscious about pursuing a “high level” rationality. I would like to express that type of “high level rationality” as “comprehensive rationalism” and define human nature as an attitude which aims at a high level of reasonable thinking.

As I worked on this piece, chartering the history of TCS, I realized that while no human being or company can be termed as “perfect” in the Utopian sense, TCS and its visionary CEOs, especially Mr. F.C. Kohli, have been imbued with a remarkable comprehensive rationality in their vision and approach, and in shaping the history of TCS. I would like to introduce their pursuit of thorough rationalism in business as one of the models.

## **Encounter with Computers: Vision “To bring about an IT Industrial Revolution in India”**

TCS’s first CEO Mr. F. C. Kohli is widely known as “The Father of Indian Software” not merely because of his “pioneering” vision of being one of the first to use large-scale digital computers way back in the 1960s when computerization was in its nascent stages, but for nurturing an innovative vision “to bring about an IT industrial revolution in India,” especially in times when the nation’s economy was severely controlled. Through his big vision, Mr. Kohli foresaw the coming of the world-wide

information industry. In other words, right from the beginning, he held the vision that transcended the borders of private companies.

Mr. Kohli, in his interview, pointed to the 6<sup>th</sup> page of his book, “The IT Revolution in India”, in which his own documents and lectures are compiled, and urged me to read it aloud. It was the vision that Mr. Kohli held in his young days when he encountered computers.

From these readings, it is clear that it was not just the way he seized the new business opportunity about the arrival of IT or the information technology industry, but realized with a strong sense of responsibility that this was a once-in-a-lifetime opportunity of “industrial revolution” which could be experienced by India for the first time. Mr. Kohli went to the extent of saying that “if we missed this opportunity, the future generations will not forgive us”. He consciously placed his standpoint at every forum. As per his aspirations, at least, now India is the leader in the software industry alongside America. But the road to achieving it was fraught with several hurdles, and he actively made an effort to open the doors of opportunity through his ingenuity and execution.

Mr. Kohli in a way carried forward the proud legacy of the founder of the Tata Group, Mr. Jamshetji Tata, who in the latter half of the 19<sup>th</sup> century when India was still under the British rule, nursed the vision of making India self-reliant through focus on industry and education. While setting up his own spinning mill, Jamshetji Tata did not build just a factory, but (as already stated in the Jan-Feb 2011 issue of this magazine) he took time and planned with religious fervor a factory that became “a model Indian factory” in terms of the quality of its products, even looking into ecological factors, with respect to the impact on the natural environment, and welfare of its employees.

I want to say that many years ago, there was an industrial revolution. We missed it for reasons beyond our control. Today, there is a new revolution--a revolution in information technology,..... We have the opportunity to participate in this revolution on an equal basis--we have the opportunity even, to assume leadership in this revolution. If we miss this opportunity, those who follow us will not forgive us for our tardiness and negligence.

(かつて産業革命というものがあつたが、われわれにはいたし方ない理由からそれを経験することはできなかった。現在は情報産業革命、という新しい革命が開かれている。われわれにも平等に、あるいはリーダーになれるほどの機会が訪れている。この機会をのがせば、後世の人々は、われわれの怠惰や無知を許さないだろう。)

In this way, the Tatas, right from their inception, have not carried out business with just “economic rationalism” as their focus, but have interwoven “comprehensive rationality” in their business ethics and goals. Even when viewed from a micro level (business policy itself), the Tata Group, along with building a factory with high productivity and high

quality products, was way ahead of the rest of the world in implementing the 8-hour-a-day work schedule and in introducing welfare measures. At the macro level, aiming at India's independence and self-sufficiency, the Tatas built a large scale steel company (presently TISCO, 7<sup>th</sup> largest in the world, established in 1907) and a hydroelectric plant (year 1910). It also established (year 1909) an institute of higher education (Indian Institute of Science: IISc) for the first time in India to grow and nourish ingenious talent, with the chief aim of nurturing and utilizing the modern rational capabilities of Indians. Further, it established The Ratan Tata Foundation and The Dorabji Tata Foundation (year 1918) based on the concept of "returning to society the profits obtained from society" for the welfare of people who were not as fortunate as their brethren. It contributed towards educational institutions for cultivating human resources, so that they could become the pillars of the nation.

## **Parsi Teachings**

After the founder Jamshetji's death, his line of successors, starting from the second Chairman Sir Dorabji Tata (1904~1932: Tenure 1904~1932), the third Chairman Sir Nowroji Saklatwala (1875~1938: Tenure 1932~1938), the fourth Chairman JRD. Tata (1904~1993: Tenure 1938~1991), and the present fifth-generation Chairman Mr. Ratan Tata (1937~: Tenure 1991~present) all have further expanded the range of industries, including airlines, automobiles, etc, in the basic spirit and consciousness to contribute socially towards India's uplift and create wealth for the society. In the 21<sup>st</sup> century, instead of it being a model for India, I feel the Tata Group is aspiring to become a global enterprise that may even become a model for the world.

It is also widely known that the Tata clan is Zoroastrian's descendant (a minority race called Parsis), which defected to and lived in India thousands of years ago after fleeing from the present day Iran to escape Islamic persecution. The Parsis are good people who observe the teaching of "Good Thoughts, Good Words and Good Actions" in their daily lives, and they are deeply trusted even in the Indian society.

None of the TCS CEOs, including Mr. Kohli-- the main subjects of this article--are Parsis. However, they carry the legacy of the Tatas by sharing the deep spirit of contributing to society. Even after reading Mr. Kohli's book, compiling his lectures and documents, we can sense the strong commitment to develop socially and economically through IT and industry, not only in India but also in other developing nations of the world.



**Profile Faqir Chand Kohli**

Born in Peshawar (in present day Pakistan) in 1924. After graduating from Peshawar University, he studied abroad at Queen's University in Canada on a national scholarship and did his Master's Degree in Electrical Engineering at MIT. In 1951, he joined Tata Power. In 1969, he was appointed as TCS's first GM/CEO. He pioneered and led India's software industry. In 1994, he was appointed as Vice Chairman of TCS. He received several honors and doctorates from within and outside the country including the Padma Bhushan from the Government of India. At present he is engaged in CSR activities.

## The Birth of TCS

Inheriting such a grand legacy, TCS was born in the year 1968 during the tenure of the fourth Chairman of the Tata Group, Mr. J R D Tata. The initiatives taken by J R D Tata to build the Indian industry during his more than 50-year tenure as Chairman were stupendous. This is amply demonstrated in the voluminous biography, "Beyond the Last Blue Mountain". He was also known for his noble-mindedness and never resorted to illicit means at any point of time. He was the first person in India to receive an airline pilot license, and in 1932, he even established Tata Airlines (it was nationalized in 1952 and is presently Air India), India's first aviation company and is known as the "Father of Civil Aviation in India". Further, his parents, R D Tata (1856~1926) and his wife (a French national), like the Founder Jamshetji, received recognition for their contribution to the Japanese economy since the Meiji period and were not only honored by the Japanese



Mr. JRD Tata, 13, with his sister in Yokohama in 1917



JRD Tata piloted [a plane] to commemorate Air India's 50<sup>th</sup> Anniversary

Government, but also had a close relationship with Shibusawa Eichi (1840~1931). The records are preserved in the Shibusawa Historical Museum (Kita-ku, Tokyo). The fact that even JRD Tata himself, when he was young, was welcomed by Shibusawa Eichi can be seen from the list of names mentioned in the Shibusawa historical materials. Shibusawa Eichi, who valued ethics as an industrialist, highly appreciated the sense of ethics of the

Tata clan. In 1917, when JRD Tata was 13 years old, he lived in Yokohama along with his parents for 18 months, and this is the photograph with his elder sister which is exhibited in the Tata central historical museum. JRD Tata had several fond memories of Japan.

Coming back to TCS's founder Mr. Kohli, he was the right-hand man of Mr. JRD Tata and worked with Mr. Nani Palkhivala (1920~2002), another Tata stalwart and a renowned authority on the Indian constitution, when he took charge of TCS.

Turning 87 this year, Mr. Kohli still stands tall and erect and is actively involved on a day-to-day basis in making large scale social contributions, as will be mentioned later. His motto of "Always Ahead" is reflected in his deeds and actions, and he says that we are still only halfway on the path towards the "IT Industrial Revolution that is conducive to Society".

Mr. Kohli's office is in the building where TCS was born, namely, on the 11<sup>th</sup> floor of the present Air India Building, and the photograph at the beginning of this article was also taken there when I interviewed him.

## **"One should always keep learning"**

The spirit of "Always Ahead" is not only held by Mr. Kohli, but also by his successive CEOs, Mr. Ramadorai and Mr. Chandra. I interviewed all the three leaders separately, but, as chance would have it, they all shared the same thoughts, namely, "One should always keep learning". It was as though the words were flowing out naturally, as if by common consent. This philosophy may, to some extent, be because of the nature of the constantly advancing IT industry.

During my interview with the present CEO, Mr. Chandra, the views shared by him were thought provoking. After Mr. Chandra joined TCS as a programmer in 1987, he said "Learning something new every day through my work made me so happy". Mr. Chandra made a lot of remarkable achievements in a short period. Amongst these, he demonstrated a rare ability in understanding the nuances of the E-business practice, in System Development, which enabled TCS to expand globally, and in building a close partnership with the large media company, Nielsen. His take on learning that if you really enjoy it, then there is no pressure and that "pressure is something that you put on yourself and is not something that is given by someone else" was impressive.

## **TCS's History – First fruits of “Comprehensive Rationalism”**

At present, India has several hundreds of big and small IT companies, but except TCS, most of them were established during the 1980s. Even from amongst these, a large number were started by persons who had worked under Mr. Kohli in TCS. TCS, for sure, has been the true pioneer of the Indian IT industry both in name and reality.

### **Dawn of TCS: 1960s ~ 70s**

While talking to Mr. Kohli and referring to the conversation I had with others in TCS, I obtained a lot of valuable information that will not be found in any book and, more importantly, I got to know about the history of TCS first-hand.

Mr. Kohli was born on February 28, 1924, in the Punjab region of the present Pakistan. At that time, both India and Pakistan were still under the British rule and were not partitioned. Graduating with brilliant results from Punjab University, Mr. Kohli went to Canada's Queen's University on a national scholarship and, in 1948, received a degree in Electronics Engineering. Since India and Pakistan were partitioned while he was studying abroad, his parents were forced to migrate from their hometown in Punjab to India. After obtaining his degree, Mr. Kohli worked for about a year in a power company in Canada. After that, he obtained his Master's degree in Electrical Technology from the Massachusetts Institute of Technology (MIT) and learnt control technology of power generation, which was the cutting-edge field at that time. That area of specialization had started at MIT, and “the teaching staff was very good,” he recollected.

He returned to India in 1951 and worked for Tata Power. In other words, he basically specialized in power and aspired to become a competent engineer, but in the 1960s, he reached a turning point of his life.

In 1964, in other words, four years before TCS was established, a mainframe computer was imported at the Tata's fundamental research laboratory in Mumbai. Mr. Kohli instantly and instinctively thought that if they did research on this new machine called computer, it could be used for electrical power systems. He put this into practice; by 1968, he utilized it for various stages of operations at the Tata Power Company. Both for hydroelectric and thermal power plants, Mr. Kohli used a digital, and not an analog,

computer. This implementation was well ahead of the times and digital computers were introduced in India even before the United Kingdom, Japan, France, and Germany. In America, only four companies were using digital computers. I enquired with Tokyo Electric Power Company, but, as I expected, there was no trace of thinking of introducing digital computers in the 1960s for hydroelectric or thermal power plants.

## **Clear Vision and Will**

In this way, as a power specialist, Mr. Kohli's excellent record of utilizing computers became a business opportunity. When India's first IT company—TCS—was launched in the Tata Head Office, he was welcomed as its first General Manager. Until today, Mr. Kohli feels proud to be a power engineer, but at that time, he was also strongly attracted to the computer which was the first of its kind in that era. TCS started with an employee strength of less than 10 and did payroll jobs and card punching for companies within the Tata Group.

In 1969, TCS received an order from an external company for the first time. It was to build the interbank reconciliation system for India's Central Bank, and by gaining the trust through its success in this venture, it soon received similar orders from 14 other banks. Further, it also began to receive orders from government institutions and telephone companies. But all of these jobs required low technological skills and Mr. Kohli felt the need to feed higher level technological capabilities, but those technologies did not exist within India.

When only one company had surfaced on the Indian IT horizon, Mr. Kohli had the clear vision "to bring about an industrial revolution through IT".

In spite of a strong will, serious problems came in the way of the actual implementation of his vision. To begin with, the Indian Government was not in favor of introducing computers in the country. They believed that computerization would aggravate the serious unemployment problem. Thus, for over a decade since TCS's establishment, progress on the computerization front was at a snail's pace.

"At that time, India's controlled economy was, needless to say, strict and in order to import computers, it used to take two years for procedures within India and one year for procedures within America, the source for import. In that period, the model ordered initially would disappear and the Government would ask the model names to be

rewritten”, said Mr. Ramadorai, the current Vice Chairman (who joined TCS in February 1972). “Over and above taking time, a 300% import tax used to be levied. There was mostly no other company in India, which dabbled in computers by crossing so many big hurdles”, he added. After receiving these types of outrageous treatments time and again, even the otherwise patient Mr. Kohli often said in exasperation, “Let me go back to the power sector to which I belong!” In any case, the Indian Government, at that time, did not want to open its doors to foreign products, most of all, to computers. But, since it finally gave permission because exports would earn foreign exchange, Mr. Kohli kept the hope that he could develop and export software by using the abundant intellect and English language capabilities of Indian resources.

## **Turning point towards the big leap: Opportunity towards the big leap amidst difficulty**

While talking about the history of TCS and Mr. Kohli, something noteworthy that happened in the first half of 1970s came up. From 1973 to 1974, Mr. Kohli visited America at least ten times and contacted Burroughs Company, which was No.2 in the computer world at that time after IBM. Then for the first time at the end of 1974, he received a job from Burroughs and that became an opportunity for TCS’s big leap later.

Mr. Kohli recalls the important milestones as though they happened yesterday, and feels proud even today that so much work could be done. In other words, the work that he received in 1974 itself was nothing but writing the healthcare-related system for a new computer model of Burroughs, but in those times, a computer manufactured by Burroughs did not exist within India. As mentioned earlier, it was not easy to import hardware. And so the competent team of TCS led by Mr. Kohli decoded the code of the computer at hand, which was manufactured by Britain’s major company, ICL, developed “filters”, after a lot of hardship, which could read even the Burroughs computer and after that, completed the basic work pertaining to the order it had received. What Mr. Kohli calls as “filter” was, so to speak, the last resort, which they thought of, under unfavorable conditions, to somehow complete the job they had received and was no more than a byproduct. However, this byproduct would play a major role. Mr. Kohli dispatched his subordinate to the Burroughs factory in California and on showing that the “filter” so developed worked well, the representatives of Burroughs were highly impressed and pleased and later, with that filter as the weapon, Burroughs was able to cut into the market of ICL. This was memorable and became the first software that was exported from India.

That became an opportunity and Burroughs placed its deep trust in Mr. Kohli and started entrusting a lot of work to TCS. Further, in 1978, Burroughs also forayed into India and that also became an opportunity for it to unite with TCS. This was a major step towards making India an IT superpower. “In life, no one can predict what will happen”, says Mr. Kohli quietly. Rather than merely calling it blind luck, it looked to me to be an attitude of tackling a job intently amid unfavorable conditions and with a high will power. It was only when serious problems were tackled that the doors of opportunities opened widely.

### **Spearheading the Business Model called “Onsite”**

In this way, from the middle of the 1970s, TCS started to grow with America as the focus. This was the era in which no other IT company other than TCS yet existed in India. Some other American companies, which were associated with Burroughs, also passed down work to TCS. For example, TCS started to carry out onsite jobs (IT engineers were dispatched to customer sites to provide maintenance and other services, which is also called “body shopping”) for the Data Center at the Institutional Group & Information Company (IGIC) of ten banks, having 2 million customers all over America. Based on this experience, the “Onsite” methodology later became TCS’s mainstream methodology. Mr. Makoto Kojima, a specialist on Indian economy, in his book, also pointed out the advantage of how the onsite methodology “enabled Indian IT engineers to receive various types of training while handling the customers’ latest hardware.”It was TCS which first conceptualized and executed this technique.

The Onsite methodology is used even today as an effective method even though “Offshore methodology” and further large-scale systems that could respond to the global needs were established, based on the advancement in IT and communication technology.

From the early years when TCS was established, the present Vice Chairman, Mr. Ramadorai (joined TCS in 1972: when the number of employees were around 40), was entrusted not only with a job in programming, but also in a wide variety of other fields, such as of doing research in the hardware field, and contacting various customers. In 1979, along with opening TCS’s first overseas office in New York, America, Mr. Ramadorai took up the assignment as its first manager. But, at that time, in general in America, still the prejudice that “Indians could do something with computers” was

strong and the environment in which orders could be easily obtained was still miles away. Mr. Ramadorai said that more than for TCS, they thought “we should do good work in order to gain credibility for India.”

In the same year, TCS received a big job from a major credit card company, American Express, for developing their Payment Acceptance System. The project was a grand success and TCS’s credibility in America expanded. In those days, due to cost cutbacks, several American companies outsourced their IT jobs and TCS proved that it could provide good service at a low cost and its business opportunities expanded.

### **Progress in the 1980s: “To build assets for the nation”**

Along with expansion of its business in the 1980s, TCS carried out a new structure for further development. Particularly noteworthy amongst these was the establishment of the research and development (R&D) organization. In order to enhance its technological capabilities, TCS, in 1981, set up for the first time in India, a sophisticated large scale R&D facility--Tata Research, Design, and Development Center (TRDDC)--in Pune, a city of universities, which is 100 kilometers to the south east of Mumbai. This was Mr. Kohli’s brainchild and he worked hard to set it up.



Façade of TRDDC (Pune City)

The reason behind setting up a research and development organization was that, first of all, such a facility was not present in India, as most state-of-the-art computer technologies were in the Western world. Besides, in those days in India let alone companies, even universities were not conducting professional education in the field. But, the first idea actually came up “by chance” with no connection with IT.

From 1973 to 1974, Mr. Kohli, as an executive of IEEE, which is the world’s largest professional body of engineers (originated in the 19<sup>th</sup> century and, at present, it has 400,000 members in 160 countries across the world, with its headquarters in New York), attended its meetings in America several times. It was the era of the Oil Shock and all the other 29 members of IEEE were working at universities in America and were

involved with the Department of Energy, under the Carter administration, in researching on alternative sources of energy, so as to reduce the dependence on oil. President Carter was willing to appropriate a budget of 10 billion dollars annually for energy matters, but eventually it could not be implemented.

Mr. Kohli also started thinking along similar lines to build an applied science research and development organization in India, which would be useful for society. Using his position as an executive of IEEE, he obtained information from the human resource network of specialists worldwide, even contacted MIT, Carnegie Mellon and similar advanced research institutions of America. He even discussed the proposal with India's advanced research institution, IIT, to carry out his plan.

The philosophy of "building assets for the nation" is a Tata tradition, which has come down from its founder Jamshetji Tata. Mr. Kohli was well aware of this, and, when he placed his proposal before the then Chairman, Mr. JRD Tata, without any questions, he fully endorsed and supported it.

According to Mr. Kohli, the normal R & D centers are basically only for research and development, but in order to clearly aim at building useful "assets", he felt that it was necessary to add the word "design" before development. A robust design to sustain for large-scale use was also necessary. After designing the product of research, it was necessary to develop it so that it could be used practically. It is with this significance that India's first research and development organization called TRDDC was built. This reflected Mr. Kohli's well-planned rational thinking.

The role of TRDDC has been indispensable in TCS's development. In its "philosophy of software development" as its main character, we can certainly see the rational thinking befitting "industrial revolution." (Photograph showing the external view of TRDDC)

## **TRDDC's "Development Philosophy": Co-existence of Research / Development, Software / Products / System Development**

Today, TCS has a total of 19 homogenous research and development centers in India and America, with a staff of 1500 devoted to research. In 2006, they were integrated into one single entity and their collective strength has expanded TCS's research and development capabilities further. But, even today, TRDDC is the largest research facility with 250 research staff.

TRDDC has three departments. One is the "Process Engineering" department (the section which does research and development of tools, technologies, and support systems for improving efficiency of manufacturing processes and cutting costs), the second is the "Software Engineering" department (plays a key role in developing software that customers demand), and, the third, set up in 2007, is the "Systems Research" department (for optimizing efficiency of large-scale systems, such as the Data System, HR System of large enterprises, and complex engineering systems such as nuclear reactors).

According to TRDDC Vice President, Dr. Harrik Vin, whom I met when I visited the research center, PhDs who have taught at American Universities for more than 15 years felt that when compared with IBM and other similar organizations, TRDDC was unique in that fundamental research and the research leading to development of products co-exist here. TCS provided mechanisms and encouraged research of general consumer products right since its establishment, which also makes it a rare R & D center.

According to Mr. Kohli, right from the time it was established, we had an eye not only on software, but also on "manufacturing". At that time, we brought in Dr. Subbarao, a renowned authority on materials and material sciences, from IIT to our center. Within TRDDC, in a brightly lit office, occasionally I saw researchers participating in animated discussion. To date, a lot of innovative software has been created in this facility alone. Even the lead researcher, Lodha, who guided us around the facility, said that even though they were researchers, they got an opportunity to analyze the technical problems that customers were facing and tried to find a solution, which is really enjoyable.

## **‘Standardization’ of Software Development**

Within the three departments of TRDDC, if we look at the methodology of software development in the “Software Engineering” department, we will be able to understand the philosophy behind it. This department has been mainly carrying out technological development, which becomes the basis for software as a product that TCS provides to its customers.

To explain a little more in detail, even in the IT field, technology is fast-evolving and changes rapidly. It takes a huge amount of effort, time and, more importantly, cost to create a new code to match those changes and to develop new applications. And so, TCS created a certain number of “standardized set of tools”. Based on these, it is also able to develop newer software quickly. Standardized software tools mean software for producing software – also called “Meta Tools” – and, to put it in another way, tools for “generating” tools – like dies and molds.

This approach of “standardization”, which the industrial revolution until now had developed in the pursuit of efficiency and low price in “manufacturing”, can be said to have been applied to the software industry. “We literally tried to imitate the industrial revolution” said an executive involved in TRDDC right from its initial stages. They brought about a high efficiency in time and development cost by changing the programming technology from an individual’s skill (something that others cannot imitate easily) to an industrial type of a skill whereby anyone could understand and regenerate it.

TRDDC has been developing several standard tools in this way. From amongst a number of groundbreaking inventions, the one which especially became famous in later years, was MasterCraft (presently its name has been changed to TCS Code Generator Framework), which was developed in 1999. Based on the type of software model, it generates the code automatically and, moreover, based on the needs of the users, it can rewrite that code. This was an invention, hitherto unseen in the software industry, and it received a great deal of attention. In the web version of a New York Times paper, dated May 27, 2005, an expert at Microsoft Corporation had said, “MasterCraft creates a code in a few minutes which, with the technology until now, would take several tens of years to create”. We know that it certainly was a path-breaking invention.

## Frugal Engineer (Affordable and Useful Technology) Approach : India's modern-day version "Water Philosophy"

Another invention from TRDDC which has received a lot of attention in India is the low-priced water filter called "Sujal" meaning clean water.



Swach

It is a useful invention for India, which is plagued with potable water issues. The equipment to which this filter is attached is called "Swach" meaning clean. It is manufactured using a raw material, which is usually burnt and discarded. The filter eliminates bacteria and virus from water, using rice husk as the raw material, which is available in plenty as rice is one of the main crops of the country.

In the tsunami that occurred in the Indian Ocean in December 2004 and devastated vast tracts of the Eastern coastline of India, TCS provided a large number of Swachs to provide safe drinking water to the people. I too drank water from Swach. Of course, the measure of cleanliness depends on the input quality of water, but when I drank water from a Swach filter, pure water started flowing in a mere 15 minutes. One unit of Swach is as cheap as USD 22, and the filter too has a useful life of approximately six months. Swach received the top award at the 2010 Asia Innovation Awards.

In this way, TRDDC has blended the approach of "affordable and useful technology" in the basics of development of both software and products. Not only in India, but in other developing countries too, many people cannot buy expensive water filters. An affordable and useful product is naturally welcome. On hearing about this, I recalled the "Tap Water Philosophy" advocated by Konosuke Matsushita. The idea is to eradicate poverty by producing cheap products in large quantities, but TRDDC is thinking precisely how to develop these types of products while giving due consideration to ecology.

## **Application of Manufacturing Philosophy to Software Development: Making India a Software Development Hub**

In this respect, the basic tenet behind TCS's philosophy of software development was similar to the technique used in the "manufacturing" process during the industrial revolution. "Standardization" can be said to be an example of that, but it was not just standardization alone. In the mid-1980s, the Indian Government finally became conscious of the arrival of the computer era. Although still working in the controlled economy model, the government significantly relaxed the import of computers. In due course, TCS brought in IBM and other mainframe computers to meet the needs of its customers in varied specialized fields. It set up centers, so to say "base factories", for software production at various locations mainly in India.

Thus, TCS thought of producing software in a rational way just like manufacturing, and for that it was also necessary to make large-scale investments in "mechanization" using mainframe computers. Depending on the nature of domestic and overseas orders, it efficiently produced and delivered products called software. In a manner of speaking, it led to the appearance of "software hubs" in India. This can be said to be a sure step towards the "IT Industrial Revolution" of India.

By launching these "software producing factories" at various locations in India, TCS got large-scale business from overseas. For example, in 1989, it provided an Electronic Trading System for SECOM, a company in Switzerland, and at that time it was an unprecedented large-scale and complex project for the IT companies in India. What is more, it also demonstrated results in large-scale overseas orders, such as Canada's Securities Depository System or computerization of South Africa's Johannesburg Stock Exchange.

## **From the 1990s to the present: The Quantum Leap and Globalization amid Expansion of the Internet**

In the beginning of the 1990s the bubble economy collapsed in Japan. In parallel, it was also the sign of a boom for the America-centric IT industry. In 1991, just before the rapid development of the IT industry and the internet, India too declared that it would embark on a policy of economic liberalization. In the same year, Mr. JRD Tata, the

long-serving fourth generation Chairman of the Tata Group, passed on the baton to his successor, Mr. Ratan Tata.

The new Chairman, Mr. Ratan Tata, promptly embarked on the high sea of a liberalized and global economy and not only promoted the modernization and rationalization of the Tata Group's management, but also carried out M&As that solidified the Tata Group's position from an Indian conglomerate into a global enterprise. Along with the Group's global expansion, he created the mechanism for integrating the entire group in order to maintain the ethics and values which the Tatas stood for. To achieve this, he created an in-house system for maintaining the "Tata Brand Equity and Brand Promotion", which was built over a long period of time. In my opinion, this reorganization itself represented an attitude of pursuing "comprehensive rationalism" at the top-most echelon in the group.

Along side these transformational reforms at the Group level, TCS was making quantum leaps with the burgeoning of the IT industry and the spread of the world wide web. From a domestic Indian company, with a few thousand employees, it was asserting its identity as a global enterprise, with its employee strength crossing the 10,000 mark. In recent years, the company is rapidly expanding and its human resource strength is expected to scale to 200,000. The person at the helm of management, who brought about TCS's quantum leap towards globalization, was Mr. Ramadorai (present Vice Chairman), who was appointed as CEO in 1996. (In 1994, Mr. Kohli became the Vice Chairman. The Chairman was Mr. Ratan Tata.)

Along with globalization, propelled by the quick and bold skills of Mr. Ramadorai, TCS also set up a support system called "Maitree" ("maitree" means "friendship" in Hindi) for the Indian employees on overseas assignments and for global employees of TCS. It may be better to call it a volunteer group formed by the families of employees. In the deputed location, it provides help to settle down in the new environment and blend with the local community. It also carries out various activities to enable them to enjoy life in a different country. Maitree is not just for the mutual support of TCS employees and their families, but it also contributes to society through its local volunteer activities.

## **Expansion and Globalization through "E-Business" Opportunities**

With the internet becoming the medium of communication, new business opportunities also cropped up. In particular, in the latter half of the 1990s, E-Business (carrying out

various aspects of an enterprise's business processes over the internet) was the newest business opportunity. Mr. Ramadorai initially set up an in-house E-Business Department with just ten staff members. Along with providing E-Business solutions in a variety of areas, it also started consultancy. During this time, Mr. Chandra, the present CEO, also exhibited great caliber.

Gradually, the high level of service of TCS enabled partnership alliances with major companies such as IBM, Microsoft, and others. In a short time frame, TCS was able to acquire several more customers. It obtained the trust of global mega corporations, such as GE, AT&T, P&G, etc. Further, even in the Financial Services, which was TCS's turf since it was established, it developed sophisticated software, such as for Custody, Brokerage, Funds Settlement and Depository System and won the solid trust of its customers. Until the 1990s, TCS had 250 or more global companies as its customers. By 2004, this E-Business brought 500 million US dollars for TCS.

## **Shifting focus from America to the world : Idea called COIN (Co-Innovation Network)**

The decline of America-centric IT in the year 2000 saw TCS focusing on global business. It began to carry out M&As actively and took dynamic action by entering into profit sharing alliances with other companies in the same industry. It also forged tie-ups with advanced research institutions for product and market development.

The striking of global alliances also rapidly changed the style of "innovation". A researcher had once aptly remarked that even for large enterprises to carry out innovation independently would be out of step with the times and would involve an investment risk. TCS too held this view from early on; in the course of the globalization era, it strongly promoted a network for innovation called "TCS Co-Innovation Network (COIN)."

COIN went beyond the framework of a single enterprise. Through a network of cooperation with other companies and advanced research institutions, transcending national borders, it gave rise to collaborative innovation and was able to provide high level solutions to its customers. Mr. Ramadorai said, "For example, the phenomenon in which an idea was conceived in Japan, commercialized in Germany and sold in America became commonplace. The approach was not to treat it as a unit called one company or

one country, but it was necessary to think of it as something new that was born in the midst of associations that had overcome various obstacles”. According to the researcher mentioned above, the concept of innovation network itself was not new; IBM, Microsoft, and Google had also formed one, but TCS’s COIN was singular in terms of a “customer-oriented network”. A spokesperson for a UK company, which became TCS’s customer, commented, “TCS thought that innovation could happen in any part of the world and from any type of an institution and formed an extremely close network and brought the latest technology to us customers quicker than others.”

## Global Network Delivery Model™ (GNDM™) as a Powerful Weapon

TCS’s Global Network Delivery model™ called GNDM™ is a service delivery network that was formed in the 1970s when TCS started expanding its operations overseas, especially in America. Globalization saw the further strengthening of this network on a world-wide scale. In particular, after the present CEO, Mr. Chandra, became the Global Sales Head in 2002, GNDM™ became a large-scale and cohesive network that provides optimum software and services to its customers across the globe, in keeping with the localization requirements. Today, TCS has 105 delivery centers (software development factories) across five continents in the world, besides having 150 offices (Please see Chart 1).

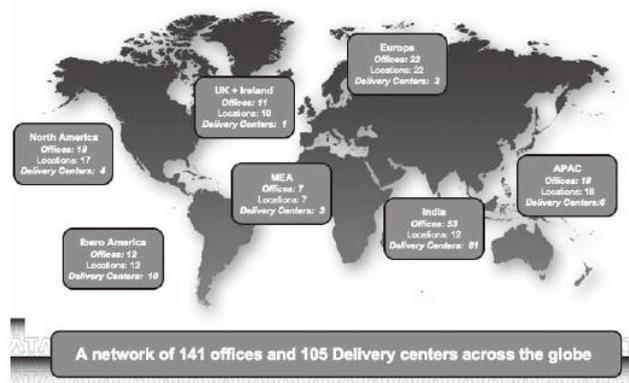


Chart 1 Global Operations

According to Mr. Chandra, with the world turning global, the “offshore” model alone would not suffice and a “global model” is a must. In other words, the best suited skills that meet the customers’ requirements may not be found in any one place or in any one

country. No matter where they are accessed from, high level solutions with a “standardized” quality must be provided. It is necessary to have a system in which “standardized” quality and service with “consistency” can be offered anywhere in the world and that is the GNDM™ model by TCS.

TCS is known to be the first company in the world to have achieved, across all its offices, the topmost Level 5 in both CMMi (Capability Maturity Model Integrated), a global standard to assess the management quality of IT companies, and PCMM (People Capability Maturity Model).

According to TCS Japan’s General Manager, Mr. Soumen Roy, GNDM™ offers optimum software services to customers in the shortest possible time, once the customers define their requirements. Furthermore, we have made systems whereby the customers can specify their requirements in their own languages. Actually, even if we look only at TCS Japan, we have laid out the framework which has enabled us to set up a team of 1600 engineers (with 200 bilingual engineers) in India and overseas, who can support Japanese enterprises.

At present, TCS’s ratio of domestic business to its overseas business is 1: 9; in other words, 90% of its overall business is achieved from overseas as shown in Chart 2. Its customers are mainly from Banking, Financial and Insurance industries, but it supports just about every industry. At this point in time, the industries with which it is not associated are only the nuclear and waste industry. Moreover, if we see the region-wise (Chart 3), the proportion of North America remains to be high, followed by Europe, India (domestic), and Asian countries in that order, and the company is aiming at further global development. According to Mr. Ramadorai, “The competition is growing more and more intense and the speed is also becoming fast”.

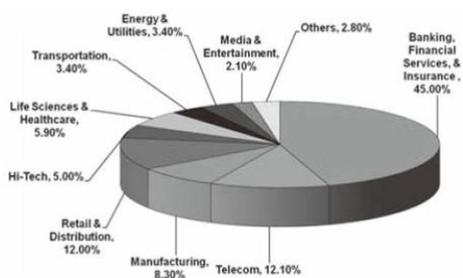


Chart 2 Revenue by Business Verticals

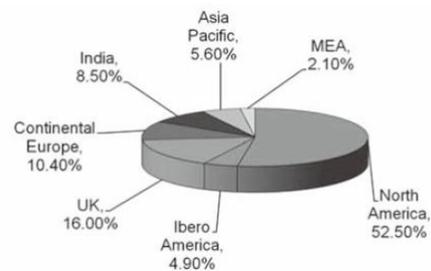


Chart 3 Revenue by Geography

## **Philosophy of Holistic Human Resource Development: Nurturing Consultants / Managers**

Apart from the advanced rational management of software development and system services on a large scale, TCS has had the philosophy, since the time of Mr. Kohli, to nurture and utilize the human resource potential.

Software development, as we all know, requires a high level of knowledge. Essentially, “software engineers” is a specialist group. However, in case of TCS, along with being specialists, human resources are further trained to acquire consulting or managerial skills. In concrete terms, even university graduates are allocated for the first two years to domains which are different from their specialized fields at university. It does not restrict the training to narrow areas of specialization, which are immediately required. The reason for this is that if it lays emphasis on specialization in a specific field, then when the technology in that field becomes obsolete, even the human resources become redundant. The philosophy of nurturing individuals holistically without making them redundant on an ad hoc basis can be seen here. Of course, at present, with TCS globalizing rapidly and becoming a multinational with people from across the world joining it, it is not easy for it to implement this philosophy across the entire organization.

Mr. Kohli advocated the nurturing of the “TCS Engineer Brand”. That is because not just specialized knowledge but an all-round intellect is required for developing solutions that can satisfy customers. To do so, improvement of multiple and holistic skills are highly necessary. These skills cannot be cultivated by conducting a one-time training, but continuous training is required to hone these skills. As mentioned earlier, even in the interview that I had in TRDDC, the research specialist said, “The enterprise and social problems themselves are complex, and it is necessary to arrive at solutions based on a multifaceted understanding”.

It is well-known that TCS spends a great deal of money to train its human resources, and it spent 6% of its revenues in 1998 on human resource training, such as research, etc. Besides investing in training of its own staff, TCS also provides financial support to research programs of top advanced educational institutions such as IIT and IISc. As part of information exchange programs, TCS employees are constantly interacting with professors and students in advanced educational institutions. From the national and social perspective, it implies enhancing the education level of Indians holistically. This

approach, as mentioned earlier, underlies the philosophy of “building assets for the nation” which is a Tata tradition.

If we look at it in this way, Mr. Kohli’s aim, through TCS, was not merely to develop new software or offer services through a single company, but to nurture “consultants” who would be all-rounders, to solve the various problems of society. Mr. Ramadorai has written in the introduction to the book, which is a compilation of Mr. Kohli’s lectures (year 2005), about Mr. Kohli’s aim. “The Indian software industry has seen success to some degree. But, if we compare it to climbing a mountain, it is equivalent to setting up the base camp. In order to reach the summit (in order to respond to the needs of the global market), we must go beyond the (present) software service area and be perceived as “consultants”.

Similarly, the brand Tata Consultancy Services too needs to be recognized in the same broad sense.

## **Mr. Kohli’s Recent Social Contribution Activities : Social Meaning of IT Industrial Revolution**

In 2000, Mr. Kohli stepped down from TCS, but his desire towards “industrial revolution” has not diminished with his retirement. To begin with, “industrial revolution” does not only mean that the industry becomes large-scale, but the country or society experiences a big structural revolution. At one time, through the industrial revolution in Europe and America or in Japan, the middle class emerged and a big change was seen in the social structure. At present, India as a country ranks fifth in the world in terms of GDP, but if we convert it on a per-capita basis, it ranks 144<sup>th</sup> in the world and several citizens are living in poverty. Even if we look only at India, there is still a long way to go before we call it a social revolution.

As one of the concrete ideals, Mr. Kohli thought that it was necessary to improve the overall level of education in India. In the 1999 census of India, Mr. Kohli became conscious of the fact that even though we were approaching the 21<sup>st</sup> century, the adult literacy rate in India was only to the extent of 65%. Moreover, he was also shocked with the fact that one in three of the world’s illiterate population was Indian. He felt “how can they participate in society if they cannot read the newspapers”.

And so, can we not use IT to rapidly improve the literacy rate, he thought. I cannot write in further detail due to lack of space, but even in this activity, in order to improve the literacy rate of adults, Mr. Kohli, along with a team of experts, devised a novel and epoch-making mechanism, which was completely different from past methods.

Under the Computer Based Functional Literacy (CBFL) program, adults (target was 15~30 year olds), who could not read or write, were able to read newspapers, handle simple day to day writing requirements by receiving lessons for about three weeks, without having to go to school, or to start from learning alphabets. The success of the program resulted in a drastic review of the government's own program for improving the literacy rate. In cooperation with the Government and NGOs, CBFL has already been put into practical use in several regions of India.

TCS, on its part, backed it with finance and technology. To avoid incurring costs, hundreds of thousands of used PCs were obtained from America. When the Customs imposed a tariff on these, Mr. Kohli negotiated with the Government and got it waived.

Further, the First Lady of South Africa also heard about this program. She came to inspect it and it is now partially introduced in South Africa as well.

## **Mechanism for pursuing the high level “Comprehensive Rationalism”**

While I have written at length, I have done nothing more than to provide an outline of the more than 40 years of TCS's rich history. TCS, which started with about 10 persons, has today crossed the borders of India and become a global company, with 180,000 employees, who are not only Indians but multinationals from various countries in the world. It is not only TCS but also the Tata Group, which is borderless from various points of view such as nationality, culture, etc, and it is interesting to see how it is integrated as a single group under a common set of values. It would be necessary to spend a considerable amount of time just to know its mechanism to some extent, but I will try to explain the outline.

In 1995, the Tata Group, under the leadership of its Chairman, Mr. Ratan Tata, established the well-known and extensive “Management Assessment System”, the Tata Business Excellence Model (TBEM). To share the results of this assessment, it gathers the top executives of all the companies in the group once a year and holds an award

ceremony, highlighting the management style of the best companies that other group companies can emulate.

Initially, when Mr. Ratan Tata declared that this type of an assessment system would be introduced, it seems the response from within the Group was unenthusiastic. In 1995 – the year in which it was started – only twelve companies aspired to be assessed. But, gradually after understanding its contents and significance, several of the 100 companies in the Group, regardless of the type of industry they were in, actively participated in that assessment. The model is aimed at assessing companies against a set of criteria, to judge whether they are aligned with the strategic goals and objectives set for themselves. According to the persons associated with it internally, the TBEM criteria are of an extremely high level and the companies which obtain the highest score in TBEM also win global awards in various industry forums. They say that if the criteria within the Group can be cleared, they can mostly clear the global criteria.

By providing a glimpse into the TBEM assessment system, I would like to understand the underlying thinking there.

## **A High Standard Management Assessment System: Thinking behind TBEM (TATA Business Excellence Model)**

TBEM defines the common criteria for assessing companies within the Group. The General Information Manual comprising more than 100 pages has detailed items and explanations. Based on these criteria, more than 50 companies within the Group undertake the assessment each year. Around half, that is, 25 of these companies are assessed during September ~ November and the remaining during April ~ June, with scores being given to each company. On July 29, the birth anniversary of Mr. JRD Tata, a grand ceremony is held at the National Center for Performing Arts (NCPA). As all the participants cannot be accommodated in this theatre, representatives of each group company assemble in the Tata Group hotels not only in Mumbai, but also in Pune, Bangalore, and Kolkata and participate through live coverage over web cameras.

The organization, which actually runs the TBEM assessment system, is a small independent organization comprising less than 30 persons called the Tata Quality Management Services (TQMS), which is under the direct control of Tata Sons Limited, which is the Tata Group's Head Office. It is not possible to minutely assess more than

50 major companies one by one with just 30 persons. And so, in reality, approximately 3000 persons selected from the managerial category from various companies within the Group are rigorously trained in terms of the method of assessment. 500 of these are further selected (the number of persons varies based on the number of companies that are to be assessed) and become assessors. Multiple teams of ten persons each are formed. Based on the criteria defined in the manual, one team assesses the company assigned to it in the fold. This is also a perfect opportunity for assessors to learn about the management of other companies within the group.

Based on this assessment result, which is based on points, a company which has obtained 600 out of 1000 points, which are the full points, are directly given the JRD-QV (Quality Value) Award – the most glorious award bearing the name of the former Chairman, JRD Tata, by the Chairman, Mr. Ratan Tata (Refer to the photograph of the Awards ceremony). I thought that 600 points out of 1000 points is not such a high number, but actually the assessment criteria are extremely strict and in the past 16 years, only nine companies have won this award. This highest award called the JRD-QV Award is conferred when a company achieves 600 points. Incidentally, TCS too has won this award in the year 2003.

Moreover, if a company reaches a score of 700 points, it receives an award called “Leadership in Excellence” and just three companies (Tata Steel, TCS, and Tata Motors) have received this so far. Apart from this, not only other awards such as “Serious Adoption Award” for 450~500 points, “Active Promotion Award” for 500~600 points, and the “High Delta Award” for the companies which have shown significant management improvements in a short period are given. Besides, awards for encouragement are given to companies, even though they may not have demonstrated “results”.



Top officials of Tata Steel – Tubes SBU, the recipient of the 2010 JRD-QV Award, with Mr. Ratan Tata at the center



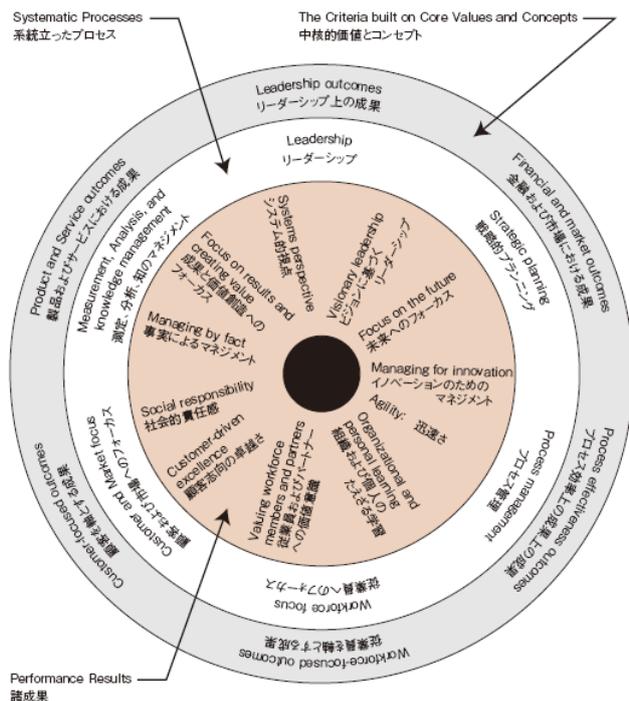
JRD-QV Awards Ceremony: Mr. Ratan Tata and Mr. Ramadorai in the center in the first row

Incidentally, TBEM is based on the Malcolm Baldrige National Quality Award system, which was established for improving the quality of any public and private organization, as the model. The Malcolm Baldrige National Quality Award was created by Malcolm Baldrige, the Commerce Secretary during President Reagan’s era in America. If we consider the fact that the award was created based on the research of management quality of Japanese enterprises from the 1970s to the 1980s with an essence of America’s originality, the Japanese management philosophy may have had some indirect influence on the assessment system of the Tata Group. The Tata Group is thoroughly implementing and utilizing this assessment system.

The contents of the manual, which gives the criteria for the assessment, are too vast and the details cannot be described in this space, but the important point is the ideology behind these assessment contents.

## Ideology of the Management Assessment System: Importance of “how” over “what”

This chart is a conceptual chart of the TBEM assessment system. Eleven items written in the center of the circle are the “Core Values and Concepts” emphasized in the course of business. This shows the approach that the six categories, including “Leadership”



within the white circle in the diagram, are the actions or approaches. These reflect the target of the assessment, and the “results” are depicted in the outermost grey circle. Based on this diagram, the various associations between “Values”, “Concrete Actions” and “Results” can be visualized.

And, the “concrete actions” and “results” which are visible become the target of the TBEM assessment. The assessments are converted into

points and the maximum score is 1000 points, but what is worth noting is that the point allocation is such that the business “results” that are supposed to have the maximum emphasis, namely, the performance (=what) is only 450 points of the overall points, which is less than half of the maximum score and, instead, the score of management contents (concrete actions=how) for reaching those results is emphasized and it is 550 points.

The “results”, namely, the “Business Results” have deliberately been kept at less than half of the maximum score. This emphasizes the management / process, namely, “how”. This shows the Tata philosophy or thinking.

The area which is equivalent to this “how” is the area marked within the white circle, and it is classified into six categories, namely, “Leadership” “Strategic Planning” “Customer Focus” “Measurement, Analysis, Knowledge Management” “Employee Focus” and “Work Process Management”. “Leadership” has the highest point allocation at 120 points and others are allocated 85~90 points each.

In the Assessment manual, the assessment criteria of the respective categories are also well-described, but what stands out is precisely the number of sentences starting with the word “how”. If I paraphrase in my own words, the assessment questions / check points make one think as to how “higher rationalism” and performance based on it can be pursued.

According to Mr. Arora, Vice President of TQMS, under whose jurisdiction this assessment system falls, this TBEM Assessment system is based on the strong belief that if “how”, in other words, management / process, is not thoroughly good, the results would, likewise, definitely not be good. If the business environment is good, there may be cases in which results are good, by a lucky chance, even though the management contents are not good. But, the results will not be good in the long term. Hence, each company should place emphasis on “how” to achieve their goals.

## **Ethics internalized in “How”: One more assessment based on the TATA Code of Conduct (TCoC)**

In particular, even within “how” what is emphasized to the maximum is the problem of Ethics that is related to the various categories of the assessment. As has already been mentioned, the Tata Group has been laying emphasis on Ethics in the course of carrying

out business. That tradition cannot be destroyed just because the group is globalizing. Chairman Ratan Tata has written in the opening sentence of the TBEM manual that he aims at an enterprise which “as a global enterprise, is strong, outstanding and sets a good example for other companies, while observing the Tata values and business ethics.”

The consciousness towards Ethics forms the basis of the core values and, under the guidance of Chairman Ratan Tata, the Tata Code of Conduct (TCoC), which is the “Code of Ethics”, which all employees of the Tata Group are required to observe, was created in 1999. It was not something that came up suddenly but is an assimilation of the Tata Group’s values, which have been documented clearly. It is bulky with 25 items spread across 20 pages and the rules of ethics are described in detail.

To put it into practice, two specialized and experienced assessors, who belong to TQMS, are put in charge of this. They spend a great deal of time on oral investigation called “deep dive” for the main managers. This is distinct from the system based on the TBEM manual described earlier. Deep dive means to deeply enter the psychology of the manager or the company internally and to thoroughly scrutinize matters relating to ethics. The person in charge is not a spy and his identity is known.

Further, each company within the Group has a professional called “Ethics Counselor.”The Ethics Counselor is employed full-time in large companies and part-time in small companies. This Counselor and the specialist who conducts deep dive maintain regular contact and monitor ethical issues.

The system of assessment in business and ethical problems not only appreciates the companies which have obtained high scores, but also whips companies, which have ethical problems and do not show the will to improve by depriving them of the right to use the Tata logo. Actually, since the time the assessment started, there have been companies, though to the extent of 1~2, which have been prohibited from using the logo and have been sold. However, it does not mean that a company will automatically be deprived of the right to use the logo if its score is low in the TBEM assessment. The most important item concerning the Tata Brand is the performance in terms of ethics and the top management of the Tata Group makes the final judgment after investigating whether or not the company has deviated ethically,

## Philosophy resides in How

TCS's management philosophy is a blend of the rational attitude along with "humanity", which aims at improving human society. These values are firmly entrenched in the organization. In the vision and style of TCS's top management, including Mr. F. C. Kohli, the emphasis on "how", which flows throughout the Tata Group, is incorporated, along with powerful rationalism and behavioral abilities.

According to Mr. JRD Tata, "Nothing worthwhile is ever achieved without deep thought and hard work." It may sound quite obvious, but it has a deep meaning. If we look at it from the perspective of Tata's traditional values, "the things which are valuable" are not only those that bring profits for specific human beings, but those which contribute to the profits for the wide society, which are ethically correct and humane. In order to achieve this, we can interpret that, through "deep thinking", we find a sensible method of a high level (comprehensive rationalism) and spare no efforts towards the goal based on the method.

TCS has a self-checking system to evaluate whether its rational thinking or practice, obtained through continuous learning, is logically correct, comprehensively "sensible", and thoughtful enough to care for others. In the underlying spirit, rather than saying "Do Good" by the fortune saved by fair means or foul, shape the "good", in other words, a "Do good while being good" attitude can be seen. Mr. Kohli's idea was not just to train talented engineers, but, as stated earlier, his grand vision was to train "managers" who can become "consultants" by contributing towards society in a wide variety of areas by crossing the borders of the company. We can call this a love for human society. It looks like he also pursued thorough economic rationalism as an indispensable tool to achieve that purpose. We can even infer that, in his mind, there is no boundary between an "enterprise" and "general society."



**Profile Noriya Sumihara**

Born in 1957. Ph.D. from New York University Graduate School Anthropology Department. Currently, Professor at the International Center for Regional Studies, Tenri University. Areas of specialization are Cultural Anthropology / Management Anthropology / Anthropology of Work. He has published a number of books on management philosophy, globalization, etc.