

Manufacturing DAY

YOUR DECISIONS
FOR MANUFACTURING

Volume 2 | Issue 5
June 2012 | ₹50

ITP Publishing India Publication

INSIDE

- 30 **SECTOR FOCUS**
Bearings remanufacturing
- 38 **SPOTLIGHT**
Plant Safety
- 44 **PLANT VISIT**
Demag India Chakan

FATHER OF THE FORGE

Baba Kalyani on nurturing the next generation

Heading in the right direction



Niranjan Mudholkar caught up with Baba Kalyani, chairman of the Kalyani Group, and CMD of the group's flagship, Bharat Forge; and also with his son, Amit, the company's executive director for an exclusive interview at the group's headquarters in Pune

A lean approach combined with flexible manufacturing form the fundamentals of your group. Is this the mantra for manufacturing success today?

Baba Kalyani: In manufacturing, the only way you can become cost competitive is by adopting lean technologies. There are many approaches to lean technologies, and we have found our own way to do things. In our company, we tend to work towards ourselves. We don't go outside, although we do go and learn from what other people are doing. But we absorb it and convert it to a way it will work in our business. And we do it very effectively. Just to give you an example, our inventory today is running at 11 days. Whereas just about three years ago, this was running at 60 days. Clearly, that saves working capital and makes things a lot more efficient. This has been possible by being lean.

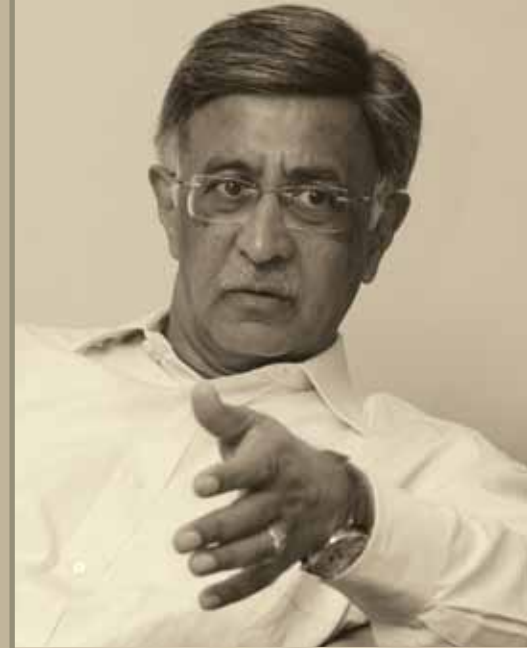
Amit Kalyani: Being flexible is another part. We are not an end-product manufacturer — we supply to various different producers — so our business model is to be flexible: to be fast and to be able to supply diverse range of products to various industries out of the same assets.

Baba Kalyani: And the way we have done it is by using extensive computer-aided manufacturing. Our extensive capabilities make us flexible because we can make everything digitally first at our engineering centre and then the process can be applied to create the required product on the shopfloor.

You put in place a de-risking strategy way back in 2005 with the aim of combating the growing worldwide market volatility. After the financial meltdown, it was further consolidated. How is your organisation benefitting from the strategy?

Baba Kalyani: If you look at the global financial crisis that took over some part of 2008 and some part of 2009, you will see that our entire de-risking strategy has worked extremely well. It was a very simple strategy. Bharat Forge in the 1990s was a very small company, prominently focused on Indian customers. We had a four or five large Indian customers, which accounted for 80 per cent of our business, and then we had some small customers. The Indian market was growing so to that extent it was okay to do what we were doing. When we went to outside markets after 2000, we were able to grow much more rapidly.

As a matter of fact, between 2000 and 2008, we grew 10 times in terms of sales largely because we externalised ourselves. So we entered the markets of North America, Europe, Japan and China, and that's where the de-risking came in because all devel-



“In manufacturing the only way you can become cost competitive is by adopting lean technologies. And we have found our own approach.”

—Baba Kalyani

oped markets in the world are cyclical in nature, especially in the automotive sector. Generally, they follow the cycles of emission technology changes every four years or so. To protect ourselves against this cyclicity we decided on three segments of the business: automotive, commercial vehicles and industrials. And we also decided to do this across three different continents: North America, Europe and Asia. Historically, all the three continents have never had the same cycles except for September 2008 and part of 2009. So we had nine segments and that worked very well.

Now, we have added a new dimension to our strategy, and that has been getting into producing components for the industrial sector. We have identified five verticals. These include oil & gas; we are now big suppliers to the oil & gas industry in North America largely for offshore drilling and for shale gas. We have many customers in that growing market and we are increasing our value additions in that business.

The second vertical is the construction and mining equipment segment, which

is also a large market for us. The next is railways in which we focus on locomotives, supplying large crankshafts and connecting rods for locomotives around the world, including in India, US, Russia and Europe. In fact, once we see the roadmap for Indian railways with the

new locomotives and high-speed trains, we will definitely want to be in those businesses as an OEM player.

The fourth vertical is large marine engines and their components. The fifth one is the aerospace segment. It is a more difficult market to get into because there are a lot of processes for which you have to develop your organisation and your organisational capabilities. We have done all that and now we are AS9100-certified. We have some trial orders from aircraft manufacturers; we have also build relationship with material suppliers, especially Titanium, so we are moving in these directions and we have two manufacturing facilities for them. One is here in Mundhwa and the other is an advanced manufacturing facility in Baramati. Between these two facilities, we can almost make all

S. No	Company	BFL Stake %	Industry	Annual turnover (Rs million)	Geographic location
1	CDP Bharat Forge GmbH	100	Auto components	7,475	Germany
2	BF Aluminiumtechnik GmbH	100%	Auto components	1,689	Germany
3	Bharat Forge Kilsta AB	100%	Auto components	5,118	Sweden
4	FAW Bharat Forge	52%	Auto components	6,047	China
5	Bharat Forge America	100%	Auto components	937	USA
6	BFL		Auto components	29,935	India
7	Hikal	0%	Speciality Chemicals	5,056	India
8	Automotive Axle	0%	Auto components	10,130	India
9	BF Utilities	0%	Infrastructure	1,311	India
10	Kalyani Steels	0%	Speciality steel	12,526	India

S. No 1 to 5 are subsidiaries of Bharat Forge & their financials are for year ended 2010.

S. No 6, 7 & 10 are part of Kalyani Group and their financials are for year ended March 2011.

S. No 8 & 9 part of Kalyani Group and their financials are for year ended September 2011.



Part of a wide product range

“We believe we have tremendous capabilities in aerospace and I think we will be a major player in this sector in the next few years.”

—Baba Kalyani

the products for all these five segments. We are driving this process and have seen some tremendous growth since we started this. The thought process began in 2006, before the meltdown, but the really acceleration came in 2009.

If you look at our Indian operations, 40 per cent of our business comes from these sectors which had been hardly 10% a few years ago. It will grow even more as we will supply components for the energy sector, like turbines and generators. We will develop these verticals.

Amit Kalyani: Basically, India is going to need a lot more infrastructure and industrial products. We want to leverage both these. Today, we are making components and hopefully in future we will make more value-added products.

Any investments planned in the near future?

Baba Kalyani: Our investments are focused in two directions. One is on creating specific capacities for specific customers based on long-term contracts and the demands we see. This is ongoing. The second is to make strategic

investments, like the facility we created in Baramati for industrial manufacturing. We didn't have orders in hand to do that; it was a strategic investment and it has worked very well for us.

We are now looking at defence equipment in India. The sector is opening up and there are lots of opportunities. We believe we have tremendous capabilities in this sector and I think we will be a major player over the next few years.

You have mentioned that from 2020, every product manufactured by your group will have a green label. How are you going to do that?

Baba Kalyani: We have a strategy of reducing our CO2 footprints.

Amit Kalyani: That's one part of it. We also want to reduce and reuse all our water so that we have zero discharge in terms of solid and fluid waste. Basically, we want to be a lot more environmentally sensitive and conscious.

Is that not the case already?

Amit Kalyani: Much more than what we are now.

Baba Kalyani: We are reducing our CO2 footprint every year, and we have been mapping this in a structured manner. Also, we have made our systems far more energy efficient and we have found ways to reduce wastage. There is also an emphasis on using far more green energy, like wind, than using fossil fuels.

Amit Kalyani: And for a largely energy-intensive business like ours, to say that it's a big thing. It obviously means that the processes we adopt over a period of time will be more and more energy efficient.

As you have said, building innovation capabilities at organisational level takes around 15 years. So how is your own innovation programme different from your regular R&D work, and how will it impact the firm both culturally and operationally?

Baba Kalyani: We have taken a slightly different approach. Of course, we do a lot of R&D because every product we produce here is developed by us. We have no technological tie-ups with anybody and we have got into so many new areas — these five new areas we talked about. We had to learn and develop all these products ourselves. So yes, we do a lot of the regular R&D. But we also started something different about or seven years ago. Our thought was, 'How do we create an innovation process and an innovation culture?'. We first started looking at hiring people from the outside, but we were not very successful — I think the reason being that the top talent generally shies away from getting into a shop floor; they like to be in high-profile places. So we decided to develop our own talent pool and set up a programme to trans-





“So our business model is to be flexible, to be fast and to be able to supply diverse range of products to various industries out of the same assets.”

—Amit Kalyani

form our own employees into engineers. This programme is in its ninth year now. Basically, it's a three-year programme, and every year we see 40 to 45 of our employees graduating from it.

Then we set up a programme with IIT-Powai for an MTech degree, and this was the foundation for creating talent for innovation. The whole idea was that we send 24 of our employees every year to the IIT Powai campus. It's a two-year programme wherein one year is done at IIT-Powai, and for the next year, they work on innovation projects here. Then

we set up our centre for innovation, which is about 15 minutes away from here.

So basically you are starting one step behind innovation. You are first building up the talent required for innovation?

Baba Kalyani: Yes, and we wanted people who know our business and are part of this business. So there are guys who have worked here for 15 to 20 years; they know our products and our processes.

Amit Kalyani: And they have a clear direction, they have mentors and they are accountable. They produce something, which is measurable.

Baba Kalyani: The good part of this programme is that this year we have filed seven patents, and we have many more in the pipeline. Now we have labs where people are working on new technologies; new things are happening. We are now trying to bring an electronics group into the business.

We also tied up with universities in Europe and Australia and are now sending some of our employees to PhD programmes. By 2020, I must have 100 to 150 PhD guys out of all this in my company. That will become the backbone of this innovation technique and by that time — of course we will do a lot more innovation in between — but by that time it will be as good as you will see anywhere in the world in this business. We have a talent factory here.

The gap between what comes out of institutes and what the industry needs is continuing to widen. You are doing your bit. Why can't the industry handle this problem collectively with a

focus on coaching instead of poaching?

Baba Kalyani: We have set up an ITI on our own in Khed. It has become a model idea in this country and almost everybody wants to copy it. The rural guys who get trained at this ITI are now getting jobs at Mercedes and Volkswagen, and all these guys have good salaries. I set the ITI up to get people here, but someone else is hiring them and I'm fine with that.

The whole idea was to create a model. Now, we have taken three more ITIs and we are trying to do the same thing. We have also taken a little more than half-a-dozen rural engineering colleges as our talent partners. Senior technical experts from our plants mentor the teachers at these colleges. They develop special programmes and then we hire 120 to 150 students from these colleges in the third year. It is a four-year programme. After they finish the third year, they come here and spend one-and-a-half months with us and then go back. They have tests in between and when they finish these, they have a job here.

So we are trying to do as much as possible to use our knowledge and capability to uplift the education system. Ultimately, the system must be changed if you want to change the situation. We are trying to set an example by this.

If one company can do half-a-dozen institutions, and there are a thousand companies in the country who follow, then the problem will get solved.

Are you happy with the overall policy framework for manufacturing in India? What more do you expect from the government?

Baba Kalyani: We always have good policies, like the recent National Manufacturing Policy, which aims to take manufacturing from 18 to 25 per cent of GDP. We should grow faster but the reality on the ground is something else: we have problems with land acquisition; we have problems with energy cost; we have talent shortage everywhere and the bureaucratic system does not change. All this has to be addressed on a priority basis.

The Kalyani Group is recognised as an ethically strong business house. How do you see this



On the shopfloor at the Mundhwa plant

“The infrastructure segment in India has opportunities but it lacks a truly world class Indian supply chain. That's where we want to step in.”

—Amit Kalyani

in today's times of scams and other negative issues related to corporate governance?

Baba Kalyani: Yes it's not easy being ethical because there are a lot of temptations and shortcuts. First of all, we suffered because we are ethically strong, but this is part of our DNA. It developed from the way we set up our business.

We are a B2B business and in this sphere, there is very little room for unethical behaviour due to a lot of transparency. Especially when you are interacting with international clients you have to be transparent; you have to be open.

Amit, the third generation of entrepreneurs usually find themselves in a difficult situation because the institution is already there and your job is to take it to the next level. What are the challenges you see in doing so?

Amit Kalyani: I think more than challenges there are a lot of opportunities today. We have got a fantastic platform and the country is growing strongly. The company has some phenomenal strengths and I think the seeds have been sown into a lot of new areas where we can create new platforms for our-

elves, and that's the direction where the company and group are going. So the task ahead is consolidating and growing the base and then getting into new, complementary areas.

So you see yourself into a position to take it to the next level?

Amit Kalyani: Well, the company is very well positioned. I think we have a very good management, very talented people and we are heading in the right direction. We don't have baggage like a lot of other companies, whether it's financial or anything else. We are very quick in decision making. Those are the factors which are beneficial in running and managing the business.

The whole infrastructure of the country offers tremendous opportunities. It is going to see a lot investment, and it lacks a truly world-class Indian supply chain. That's where we want to step in. We have the manufacturing capabilities at the base level; we have the ability to create the design engineering and execution capabilities. 