

Filling the national design deficit



VALUE FOR MONEY

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At a time when the Indian economy seems to have acquired a degree of competitiveness based to a large extent on its stock of skilled manpower, it is coming up against a shortage of skills in a key area—designing. The IITs, IIMs and the National Institute of Design (NID) were set up at about the same time but while the nation has gone ahead with producing increasingly large number of skilled engineers and managers, till today it has no more than two product designers per million population, when Finland has 125 and Japan 90.

Technology, management and design form a triad of skills or knowledge pools which enable an economy to become competitive. Till 1991 the nation had little use for the engineers it produced. It met its technology needs by either importing or reengineering. Hence there was the brain drain. The opportunity for trained managers was only a little better. As for the designing world, there were neither a sufficient number of designers, nor realisation of the need for designing.

But the post-1991 policies and the lowering of trade barriers has changed all that. Whatever an economy produces has to carry value and good designing, both reduce cost and create an emotional link between the buyer and the goods. As one designer puts it, "Till now we were producing goods that were worth Rs 50,000 but looked like Rs 5,000; this has to be changed, if not entirely reversed."

"We need to place design on the national agenda," says Darlie O Koshy, executive director of NID. "We need a national design policy, a selection system for good designs and a National Design Council," he adds. Part of the problem, many feel, was with NID itself. A centre of excellence whose reputation has long travelled beyond Indian shores, NID had laid maximum stress on retaining standards and not risked the dangers inherent in spreading the country's scarce teaching talent too thinly.

Koshy has a road map to change this scenario. The All India Council of Technical Education has set up a committee to look at the design and innovation scenario before the country. Koshy, a member of the committee, has prepared a paper outlining a four-tiered strategy to spread design education much more rapidly in the country. Tier one consists of asking the top technical education institutions in the country to set up design schools. The IITs at Mumbai, Delhi and Guwahati already have such schools. Others of similar status should follow suit. Tier two comprises the top 250 of the 1200-odd engineering colleges in the country. They should start

four-year undergraduate programmes in industrial design and two-year post graduate programmes in product design.

Tier three involves urging the rest of the 1000 engineering colleges to include in their general curriculum two elements, the fundamentals of design and design methods and processes. The fourth tier involves the IITs. They will be urged to have programmes in the new

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media. The need is for a convergent technology platform to impart what Koshy calls the skill of experience design. The aim is to have IT products, be they hardware or shrink wrapped software or a portal, with a firm usability focus.

NID took a key step over a year ago to start R&D work in Bangalore and will soon have its own distinctively designed R&D centre. It

will focus on four areas: one, nationally sensitive design (euphemism for defence design); two, designing for e-learning and the new media; three, manufacturing design; and four, setting up a national design incubator. The last, called the National Design Business Incubator, for which the department of science and technology has sanctioned Rs 2.5 crore, is perhaps the most interesting.

NID graduates with bright ideas which seem to have the best potential will be selected and supported for 18 months within which the ideas will have to be developed and taken to the market. Their coists will be met and temps have already been made with ICI- CI Bank and SIDBI to offer venture capital funding. The designers will pay it all back from the design royalties they earn.

The organic link between design and business which takes design far beyond aesthetics and allows it to win the support of the consumer via the technical route of value engineering, is best illustrated by what NID's R&D centre has already been doing. S Ghosal, head of the R&D centre, uses an inelegant word, 'productionised', to describe the 14 tasks completed in the last 16 months.

NID's aim has always been to create a student-industry interface. But two new aims have emerged. One is to harness the power of new technologies like IT in manufacturing and the other is to have a more focused approach to take de-

sign solutions to industry and the rural economy by creating new products and processes. Industry has to realise that design is not an add-on but must become a part of its psyche. A major milestone for NID's R&D centre is a memorandum of understanding with the Aeronautical Design Centre to design 170 ground support equipments for a typical combat aircraft (euphemism for the light combat aircraft). Six touch interactive simulators have taken shape and two of them—the cockpit procedure trainer and the interactive manual browser—were readied and displayed at the Bangalore air show early last year.

The R&D centre has done the design intervention to define the look and feel for six items of textile machinery for Lakshmi Machine Works. A third project involves giving shape to a machining centre for Kennametal India. It has also entirely redesigned a tea leaf shearing device for Parry Agro. The earlier product had to be operated with both hands; the new one can be used with one hand. Productivity is virtually doubled when a worker can transfer the shear from one hand, after it is tired, to the other.

Designing has to walk on two legs, explains Ghosal. It has to improve productivity and at the same time create in the consumer "a sense of possession, the wow phenomenon." That's the way to wow the world.