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TCI

This Indian LSP formed a joint venture with Mitsui to meet Toyota's demand for JIT and sequencing activity, now it is rolling model out for other carmakers in the region.

The tiger waits to pounce

Facing exploding demand at home and abroad, the Indian automotive sector is shaping into a new global player. Logistics service provider TCI aims to play an instrumental role in that transformation with JIT and sequencing capabilities, as **Jonathon Ward** reports



India has a long-established vehicle manufacturing sector, with derivatives of European designs produced there since the 1940s. Decades of tight government control stifled innovation and development during much of the late 20th century, but since the lifting of restrictions on investment by foreign vehicle makers in the 1990s, the Indian automotive industry has blossomed, thanks to substantial inward investment and the rapid growth of a strong indigenous industry.

The automotive industry now accounts for five per cent of India's GDP. A national development plan for the sector calls for that to increase to 10 per cent by 2016. In an economy that is growing at nearly 10 per cent per year, that represents a formidable expansion in capacity. Today, India's automotive sector is taking an increasingly important place on the world stage. World-class logistics are an important element in its ability to make that leap.

Like the automotive sector, India's logistics industry has transformed in recent decades. A highly fragmented, localised industry has grown and consolidated as it has done elsewhere in the world. Today India's logistics sector is worth \$90 billion and is forecast to be worth \$125 billion by 2010. Third-party logistics in the country provide a comprehensive range of sophisticated supply chain services.

Business has tripled in six years

Transport Corporation of India (TCI) is the country's largest integrated supply chain and logistics company. Founded in 1958 by Shri PD Agarwal, the company grew steadily in the decades leading up to 2000 by providing transport services to a wide range of industry sectors. The company has expanded rapidly since 2001, under the auspices of its Carnegie Mellon-educated Executive Director Vineet Agarwal, grandson of the founder. Turnover of \$114 million in 2001 has almost tripled over the past six years to \$305 million today. TCI maintains a strong presence in many industry sectors, but increasingly, this growth is coming from the expansion of value-added supply chain services.

The company today has 1,100 offices across India and a workforce of 6,000; a fleet of 7,000 vehicles and seven million square feet of managed warehouse space. The company estimates that it moves 2.5 per cent of India's GDP by value. TCI has aggressive targets for further growth and aims to be a \$630 million-plus company by 2010. This growth, says Vineet Agarwal, is likely to come from a 20 to 25 per cent expansion in its core trucking business – which still accounts for 55 per cent of the company's turnover – a 28 to 33 per cent growth in its express delivery division, a 40 to 50 per cent growth in shipping and a 60 to 75 per cent growth in its supply chain consultancy division.



DP Agarwal is Vice Chairman and Managing Director of TCI, a company which had very humble beginnings and now has 1,100 offices across India and a fleet of 7,000 trucks

The person who holds responsibility for delivering that massive growth in supply chain services is Jasjit Sethi, CEO of TCI Supply Chain Solutions. The majority of TCI's automotive industry activity falls within his remit. "We handle the logistics for 10 per cent of India's automotive industry," he says. "The automotive sector accounts for around 25 per cent of our Group turnover. It is particularly important to TCI because automotive logistics is not commoditised in the same way as the transport of food, chemicals or cement, so there is more value in the supply chain."

TCI Supply Chain Solutions offers a full range of value-added services, including supply and demand chain strategy development, supply chain design and re-engineering, site and facility location study and planning, distribution network planning, customer service review and supply chain audit.

The division also offers warehousing and inventory management, distribution hub management, order processing, materials handling and cross-docking. It also offers reverse logistics, PDI/COD services, kitting, customs clearance, e-logistics and tax management. TCI's automotive division, which includes cars and



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huge deal from Toyota and Mitsui," Agarwal tells *Automotive Logistics*. "We went to Japan to see logistics in practise at Toyota's plants there, and to America to understand the processes at its offshore plants."

Today, Transystem International provides a full range of logistics services to Toyota Kirloskar Motors, from inbound transportation from suppliers across India and other countries, to outbound transportation of complete vehicles and spares. The service includes extensive just-in-time and in-sequence deliveries, and it is with some pride that Agarwal notes that not only is Transystem the only single logistics service provider responsible for both inbound and outbound logistics at any Toyota plant anywhere in the world, but that the company now receives regular visits from other providers, keen to see logistics best practice in action.

TCI is working with several of its other automotive customers to help them implement just-in-time processes. "When we compared the way things were operating in our just-in-time facilities with some of our other customers, the difference was stark," explains Sethi. "There were situations where suppliers were delivering directly to the plant, with huge on-site inventories and other characteristics that are highly undesirable in a modern automotive supply chain. It was also obvious to us that this situation was not going to change overnight – these firms needed a way to move from their existing practices to a just-in-time approach."

Moving to the just-in-time approach

TCI is now working with several companies to manage that transition process, moving from customer-managed inventory, through vendor-managed inventory towards a true just-in-time approach. The speed with which this transition is taking place varies significantly according to the circumstances of particular plants, but leading Indian firms have made substantial progress, according to Sethi. "The Toyota project was a greenfield site with a vision to establish world-class logistics, and it is always going to be easier to implement new processes in a greenfield situation." The very best of its Indian customers have made significant progress in new facilities, he says, with some making extensive use of the most advanced just-in-time techniques, including direct supply to line side by TCI.

Sethi is adamant that there are no structural barriers to much wider uptake of state-of-the-art logistics processes by Indian manufacturers. "What is really needed is commitment by top management to create better, more efficient supply chains. As competition in the industry becomes more intense – and all the signs are that it is happening now – these companies are going to focus increasingly on minimising supply chain cost."



Transystem International, a joint venture between TCI and Misui & Co offers a full range of logistics to Toyota Kirloskar Motors, from inbound transport from suppliers to outbound of finished vehicles and spares

trucks, motorcycles, construction equipment and agricultural vehicles, serves many of the key names in the Indian industry including Bajaj, Honda, Hyundai, JCB, Maruti Suzuki, Mahindra Group, Tata Motors, TVS and Toyota.

Building up a partnership

TCI's relationship with Toyota, still a relatively small player in India with five per cent market share, gives an indication of the way logistics services in the country are evolving. "Toyota first came to India in 1997," recalls Vineet Agarwal. "The carmaker wanted to have a plant running within two years, but knew it would need a world-class logistics partner to support it." Toyota chose TCI to be that partner, but being aware that the company would need help to develop a service that matched Toyota's demanding just-in-time logistics requirements, the Japanese vehicle maker insisted on a partnership with an existing logistics service provider.

Toyota gave TCI a choice of three potential partners and the company eventually selected Mitsui & Co, establishing a joint venture – Transystem International – in 1999. "We learned a

The Indian industry may be adopting best practices in its factories and supplier parks, but do wider infrastructure limitations present a barrier to the industry's growth? Sethi doesn't think so. "India is a big country, and today we have basic competition between road and rail for effective freight logistics. It is 2,500 kilometres from Delhi to Chennai. The journey takes 26 hours by train and 58 by road, but the road routes are much more reliable."

As a result of poor reliability with rail, says Agarwal, rail transport in India is more competitive for lower value commodity items, while expensive car parts move by truck. That situation is changing, however, with the establishment of the Dedicated Freight Corridor, a network of new rail routes optimised for container transport, stretching from Delhi to Mumbai. The 2,500km main lines and 5,000km of feeder lines will be built over the next four years. This will give robust, reliable, high-speed access to "an area the size of Britain," according to Agarwal. The consequences of this will be profound, he claims "It will mean that for the first time, you won't need to be near the coast if you want to export."

Modern technology improves visibility

India's transport infrastructure may be evolving rapidly, but some key infrastructural shifts have already transformed the reliability and predictability of logistics in the region. "Now that we have robust mobile telephone networks and GPS systems in all our vehicles we have much better visibility than we could have dreamed of a few years ago," he tells *Automotive Logistics*.

India's domestic automotive market has some essential differences to those of most other countries. Significant among these is the huge importance of the two-wheeler market. Motorcycles and scooters are used much more widely as standard transport than in the West and this situation is unlikely to change in the near future. "While there is a big expansion of the urban middle class, which drives the demand for cars, half the population is still living in rural areas on low incomes," says Sethi. "As these people become more affluent, it will be two-wheelers they want first."



Executive Director Vineet Agarwal, Executive Director of TCI, says that TCI has aggressive targets for further growth, which is likely to come from a 20 to 25 per cent expansion in its core trucking business

TCI has developed its own unique equipment in response to this unique market mix. The TCI 3-Deck All Purpose Vehicle Carrier (APVC) is a patented trailer design with three internal decks that can be configured to carry a mixed load of cars, motorcycles and three-wheelers, while offering 18 per cent more capacity than conventional two-deck transporters.

The eagerly awaited launch of Tata Motors' ultra-low cost car next year may lead to further structural shifts in the market. "If the new vehicle is a success, and if it looks to be profitable, then we might see a lot of other



TCI has seven million square feet of managed warehouse space, and now, it receives regular visits from other logistics providers who are keen to see logistics best practice in action

makers moving into this new niche," says Sethi. "An expanding low-cost market could also spur development of other vehicle types, such as very simple, low-cost quadricycle vehicles."

The prospect of vehicle export is real

The development of a distinctive local market is one exciting prospect in India, but an important role as an exporter of vehicles to established markets is certainly another, and one that TCI, with its extensive shipping interests and growing overseas activity, is keen to exploit. "Nissan and Hyundai have already announced plans to build hundreds of thousands of cars for export markets, says Sethi. "It is quite possible that India will be exporting a million vehicles a year by 2010."

Component exports are also likely to increase dramatically in the next five years, he believes, as more vehicle makers pursue low-cost sources for parts. "China has taken a leading position in parts supply, but the Indian automotive supply industry has recognised the opportunity and is working hard to catch up."

What does this rapidly evolving market mean for TCI? According to Agarwal, tight control of supply-chain costs will be critical for every aspect of India's growing automotive sector. "We are going to see a lot more just-in-time logistics and I think to keep costs down we will see much more collaboration in the supply chain, with non-competing companies sharing facilities like cross docking operations."

The increasing importance of India's improved rail network will lead to an expansion of multi-modal transport, he predicts, while air freight might become more common in automotive logistics as India's firms take a more central role in the global vehicle supply chain. ●●●