TOYOTA WAY: Members of the media are shown beneath the Toyota logo at the annual auto show in Detroit this week. The interlocking relationships between carmakers and their suppliers were the basis of Japan's vaunted "keiretsu" system pioneered by Toyota. **REUTERS/MARK BLINCH**

The keiretsu system, pioneered by Toyota, was once acclaimed as an ingredient in Japan Inc's success. Could its days be numbered?

Daihatsu dismantles 'Toyota Way' in changing auto market

BY NORIHIKO SHIROUZU

IKEDA, JAPAN, JANUARY 14, 2015

When Daihatsu Motor Co launched the Mira e:S minicar in 2011, the Toyota affiliate thought it had found a model for emerging markets. The Mira e:S - e for eco, S for smart - was capable of going 30 kilometers on a liter of gasoline (72 mpg) for a sticker price of just 795,000 yen, or $6,637. And indeed, the car was a hit, super-charging Daihatsu's earnings.

A number of improvements – in manufacturing, engineering, procurement – went into the car. But the real secret to success, says Kosuke Shiramizu, Daihatsu's chairman at the time, lay in taking something out of the company's business model: the vaunted Japanese "keiretsu" system.

Shiramizu, now a Daihatsu advisor, says Daihatsu shaved off roughly $1,000 in the manufacturing costs of the car by dismantling its keiretsu - an informal but close interlocking business relationship between a manufacturer and its suppliers, cemented by cross-shareholdings and personnel exchanges.

The automotive keiretsu system, pioneered by parent Toyota Motor Corp. and widely adopted by rivals, was acclaimed across the world in the 1980s and 1990s as an ingredient in Japan Inc's success. Keiretsu, pundits preached, defused adversarial relationships between assembler and supplier, allowing them to share information and create better product quality. Hence Japanese automakers were able to leap ahead with vehicles such as the Toyota Corolla, the legendarily sturdy and reliable family car.

Today, after two decades of stagnation in Japan, the dramatic shift in growth to emerging markets and revolutions in automotive technology, Shiramizu says the days of the keiretsu are numbered. Companies, he says, are competing for price and value by using market mechanisms instead of relationship-based arrangements. While analysts have been predicting the system's demise for years, Daihatsu, along with Nissan Motor Co have gone further than any Japanese automaker in scrapping it.

BURNISHING IMAGE: Daihatsu's redesigned Mir e:S was cheaper and more economical than many of its rivals in the micro-minicar market. **REUTERS/YUYA SHINO**

> "The Toyota way is the high-cost way.
>
> **Kosuke Shiramizu**
> Former Daihatsu chairman

"The Toyota way is the high-cost way," says Shiramizu, 74, in an interview at Daihatsu headquarters in the Osaka suburb of Ikeda. "Keiretsu doesn't work anymore. If we stick with it, Daihatsu won't survive. Toyota might face a similar fate, too."

TOYOTA WATCHING

As Shiramizu reforms the way Daihatsu develops and buys components, Toyota, which has maintained a 51-percent majority stake in Daihatsu since 1998, is watching Shiramizu's experiment with interest, he says.

That's because Akio Toyoda, the 58-year-old founding family scion who became Toyota president in 2009, has struggled to deal with the global auto market's seismic shift toward emerging markets.

In China, Toyota lags rivals such as General Motors Co and Volkswagen AG. Toyota lacks no-frills cars such as the Wuling Hong Guang, a 43,800-yuan ($7,050) workhorse van GM designed and sells jointly with its Chinese partners. Toyota's cheapest model is the 69,800-yuan Yaris subcompact car.

In India, Toyota's "strategic volume car", the Etios, has failed to ignite demand, chiefly because of its relatively high price tag of 570,000 rupees ($9,118), even as rivals such as Suzuki Motor Corp. sell cars for as little as 240,000 rupees.

"Daihatsu could potentially offer Toyota a number of important lessons on how to effectively use suppliers to come up with a viable low-cost small car for markets like India," says Shiro Sakamaki, a Daiwa Securities analyst in Tokyo.

And not just lessons but actual cars. Struggling to crack the no-frills end of India's car market, Toyota earlier this year called on Daihatsu for help in designing affordable cars that could be sold under the Toyota name and through Toyota's sales channels in India - an arrangement similar to one the two companies have in Indonesia.

Shiramizu, who became advisor to Daihatsu's board and technical executive after stepping down as chairman three and a half years ago, says his parts procurement reform isn't meant to be a template for Toyota. But it is being taken seriously there, he says.

"Mr. Toyoda is carefully aware of what we're doing," Shiramizu says, when asked whether Toyoda is considering a similar reform. "He views our parts procurement reform as one experimental way."

Toyota has been making early moves towards a post-keiretsu system on its own. Toyoda, for example, has told affiliated group suppliers, such as Toyoda Gosei and Toyota Boshoku, not to always count on business from Toyota. He has given them the green light to do business with Toyota's Japanese and foreign competitors, according to two board members who spoke on condition of anonymity. Toyota has also begun encouraging the company's keiretsu suppliers working on similar technologies to merge or combine resources in order for them to better compete with major global suppliers such as Robert Bosch GmbH and Continental AG.

Ryo Sakai, a Tokyo-based Toyota spokesman, declined to comment. "As a matter of policy, we do not disclose details of our individual dealings with suppliers or our purchasing strategies in general."

COMPETITIVE SHIFTS

Two major shifts over the past two decades in the competitive landscape have been working against Japanese car makers and their keiretsu systems.

First, Western rivals dramatically closed the gap with the Japanese. That was partly due to the fact cars have become easier to design and manufacture, because they are less mechanical and are controlled more electronically. Competition thus shifted to who could offer more value to the customer: the highest fuel economy, the sexiest look, and the most compelling functions for the lowest price.

The other competitive shift came from the emerging world.

Keiretsu worked beautifully for Toyota because an overwhelming majority of the finely engineered cars it made were sold in the high-priced developed markets of the United States, Europe and Japan.

That began changing in the early 2000s, with the rise of emerging economies such as Brazil, Russia, India, China, Indonesia, South Africa and Turkey. These economies already collectively buy half of the automobiles sold worldwide today. They will account for an estimated two-thirds of overall global demand by 2020, when sales are expected to reach 100 million cars annually.

For Daihatsu, whose business is mostly in the lower end of the market both in Japan, as well as markets in Southeast Asia, the keiretsu system was especially onerous. As it began buying more components from Toyota-group suppliers such as Denso and Aisin Seiki over the years, it was also stuck with Toyota's lofty quality standards. Shiramizu says Toyota's specs are often too high for vehicles that some Daihatsu officials describe as "sandals," as opposed to the dress shoes that Toyota makes.

"Do we need parts and cars that withstand the desert heat in Arizona?" Shiramizu asks.

Consumers in Daihatsu's key markets outside Japan - Indonesia and Malaysia - are also used to driving under brutal road

SUCCESS MODEL: A worker is shown cleaning a Daihatsu display in a Jakarta showroom. The Mira e:S was aimed at meeting exploding demand in emerging markets, including Indonesia. **REUTERS/BEAWIHARTA**

$6,637

Sticker price of the redesigned Daihatsu Mira e:S

Source: Daihatsu Moto Co

conditions, which often force them to replace parts quickly. They don't expect parts to last for five to 10 years, so they are more willing to sacrifice durability for price, he says.

FOREIGN PRESSURE

Shiramizu is an unlikely scourge of the Toyota tradition. A career Toyota man, he was known inside the company as "the emperor" because of his command of the business - and his imperious temper. He reached the high post of executive vice president before being sent over to run Daihatsu as chairman in 2005. But there, he says, he came to see the keiretsu as a high-cost, inefficient burden. Shiramizu said his mantra at Daihatsu was: dissolve the keiretsu, or die.

Shiramizu's reform began in 2009 with a decision to terminate a routine redesign of its Mira mini-car in order to recast it as a strategic car: the Mira e:S. Shiramizu says the trigger was "gaiatsu," or foreign pressure, which he says threatened to kill the special category of vehicles in Japan - called "kei," or light, cars - that Daihatsu specialized in.

Washington and Detroit have considered "kei" cars such as the Mira to be a trade trade barrier limiting global automakers' business in Japan. The Japanese government offers a low annual vehicle tax rate for kei cars - micro-mini vehicles powered by engines sized at 660 cubic centimeters or less - which Detroit doesn't make. They account for 40 percent of the Japanese auto market. But the United States, a key trading partner and ally, was unhappy that kei cars were becoming increasingly indistinguishable from other low-cost economy cars with bigger engines in Japan. The redesign of the Daihatsu micro-mini, along with its new model name "e:S," was aimed at making its "kei" cars a unique category - high on fuel economy and light on the wallet.

An effort to come up with a car priced at $8,000 or lower was "way way long overdue" for Daihatsu, Shiramizu says. The American trade pressure was simply the last straw, he says.

By resetting the Mira's design direction, Shiramizu unleashed the program of keiretsu destruction that is still playing out inside Daihatsu.

His first move was to send agents of change - manufacturing engineers like Saburo Yagi, Fumiaki Fukunaga, and Yoshiki Inoue - into the company's procurement office.

Until then, Daihatsu's purchasing office was staffed by non-technical types with little knowledge on how components are designed and produced and, says Shiramizu, "no ability to assess true cost." Instead of attacking costs, those purchasing managers put a priority on their relationships with suppliers - getting wined and dined and showered with gifts in the process, Shiramizu says.

> "We have too many middlemen skimming off.
>
> **Kosuke Shiramizu**
> Former Daihatsu chairman

"ACCOUNT SYSTEM"

Shiramizu then initiated another move: abolishing the "account" system that governed procurement deals. The status quo, he says, made it almost impossible for new, non-Toyota-group suppliers to do business with Daihatsu, even when they offered better quality and price.

Under the account system, only existing suppliers with Daihatsu accounts could supply parts to Daihatsu. These so-called account holders tended to be a more financially stable group of suppliers. Any aspiring new supplier had to ask an account holder to sell through its account. Shiramizu says the system tended to inflate costs because account holders charged a fee – often 10 percent – for letting newcomers use their accounts.

Those back-to-back moves took down the two biggest obstacles preventing Daihatsu from looking beyond the Toyota group for parts.

Most important, it allowed Shiramizu to deploy his new procurement leaders in the hunt for lower-cost parts across Japan - and beyond to China, Indonesia and India.

Inoue, who was plucked out of the production engineering division by Shiramizu, and his team focused on China. The team quickly found Chinese suppliers of windshields, mirrors, speakers, and aluminum wheels at savings up to 50 percent.

One of the team's most critical findings was not a new supplier, however. It was the discovery that some account holders were slapping a hefty margin on components they procured cheaply in China.

Shiramizu was furious. By February 2010, Inoue's team had found two new suppliers, one near Shanghai and the other in the Hebei provincial town of Qinhuangdao, capable of supplying aluminum wheels for as cheaply as 150 yuan to 200 yuan a piece – roughly half the price Toyota Tsusho charged for a comparable wheel from a different supplier. Daihatsu last year bought approximately 1.3 billion yen worth of aluminum wheels in China without going through middlemen.

"We have too many middlemen skimming off," Shiramizu says. "Getting rid of those middlemen is the shortest cut to cost savings."

Akitomo Inagaki, a spokesman for Toyota Tsusho, told Reuters his company strives to provide "customised services" that emphasise "timely delivery, safe instalment and sound maintenance of equipment we handle".

"We don't see ourselves as a stereotypical trading company," he said.

ON-TIME DELIVERY

This experience quickly led to an all-out drive to weed out the middlemen from an array of contracts. A key target was Toyota Tsusho, a main provider of manufacturing equipment Daihatsu used to produce cars in Japan, Indonesia and Malaysia.

Daihatsu's procurement specialists went factory to factory in Japan, and enlisted Komatsu Ltd, Trinity Industrial Corp, Toshiba Machine Co, Meidensha Corp and Toyota affiliate JTEKT Corp as direct suppliers, cutting out Toyota Tsusho.

Buying directly from those suppliers has made the job of procurement specialists more complex. They have to ensure that the logistics for parts delivery are sound, making sure equipment orders are delivered to plants on time. It's worth it, Daihtsu officials say. For example, the company says it saved about 10 percent on milling machines it bought from JTEKT Corp, which cost up to 30 million yen a piece.

Inagaki, the Toyota Tsusho spokesman, said that if companies such as Daihatsu has the resources to allow them to do all the logistics for safe and prompt delivery then they might not need a trading company like Toyota Tsusho . "But in many cases, few companies possess such capabilities on their own," he said.

Daihatsu's new procurement system was crucial to the success of the Mira e:S, Shiramizu says, describing the car's redesign as the start of a much broader initiative to help Daihatsu adjust to rapid changes in the global market and industry.

"We still need to shave off another 100,000 yen to 200,000 yen to bring down the car's retail price even lower, into the 500,000-yen to 600,000-yen range, if we are to survive," he says.

The ultimate $5,000 car would ensure Daihatsu's - and perhaps Toyota's - success in emerging markets, he says.

CHEAP IN CHINA: Toyota lags rivals such as General Motors in China because it lacks no-frills cars for that huge market segment. **REUTERS/STRINGER**

MAKE AT HOME

Shiramizu stepped down as chairman in June 2011 and the Mira e:S launched in Japan later that year. Still, lessons from the car's redesign set off a wave of other moves now being pursued by the talent Shiramizu trained.

In one such initiative, Daihatsu opened an office in Shanghai. Its 20-person staff now searches across China for low-cost parts, an effort that netted 3 billion yen worth of parts by 2013.

The push last year went into hyperdrive when the China team discovered factory hubs in the eastern China province of Zhejiang for dirt-cheap generic auto parts – or, as one Daihatsu executive puts it, "fakes."

Daihatsu discovered those generic parts in a roundabout way: on parts shelves of dealers and repair shops in Indonesia that stock them for penny-pinching everyday drivers.

A quality engineer who took note of the rampant use of those parts in Indonesia told Shiramizu of his discovery, and a major push to search for usable parts ensued.

The results have been mixed: Designs by the generic parts producers are often robust, but the production quality is unreliable, according to Daihatsu officials. Daihatsu isn't giving up on China, but the officials say it is turning out to be a time-consuming effort.

So how will Daihatsu realize a $5,000 car?

One solution being pursued now is to produce on its own many of the core, high-ticket parts Daihatsu currently buys from Toyota suppliers. Those include air-conditioning and steering systems, drive shafts and wire harnesses.

"Toyota suppliers aren't going to like it," one official says, "but our basic philosophy is to go 'in house' - and that means no more middlemen."

Additional reporting by Aditi Shah in New Delhi and Maki Shiraki; Editing by Bill Tarrant and Michael Williams.

FOR MORE INFORMATION
Norihiko Shirouzu,
Asia Auto Correspondent
norihiko.shirouzu@thomsonreuters.com
Bill Tarrant, Enterprise Editor
william.tarrant@thomsonreuters.com
Michael Williams, Global Enterprise Editor
michael.j.williams@thomsonreuters.com