Toyota Trimming Auto-Development Time to 12 Months (Update1)

Sept. 15 (Bloomberg) -- Toyota Motor Corp. aims to slash to one year the time it needs to get new models off the drawing board and into production, a pace analysts say would be the industry's fastest and could save tens of millions of dollars annually.

Toyota, the world's second-largest automaker, previously sought to start building car and truck models within 20 months to two years of completing a new design, said Jeff Liker, an engineering professor at the University Michigan in Ann Arbor who studies Toyota's production methods. No automaker puts new models into production faster, and cutting the time to 12 months only widens that gap, said Liker and other industry specialists.

Reducing the preparation time to 12 months ``enables us to develop a variety of vehicles that reflect market needs and demands while fulfilling the advanced development structure,'' Katsuaki Watanabe, Toyota's president, told analysts and investors at a conference in New York Sept. 12.

Toyota, the maker of Camry sedans, since the 1950s has followed a manufacturing approach of ``kaizen,'' or continuous improvement, seeking refinements and cost-reduction at every stage. That's helped the Toyota City, Japan-based company set profit records of $10.3 billion and $10.9 billion in its past two business years.

Toyota's market capitalization of $153.4 billion, is more than eight times that of General Motors Corp., the largest automaker. In 2003, Toyota overtook Ford Motor Co. as No. 2 in global sales.

Watanabe didn't cite specific models being developed on a 12- month cycle. Liker said at least two, the bB wagon, sold in the U.S. as the Scion xB, and a minivan for the Japanese market, were completed in under a year. Yasuhiko Ichihashi, president of Toyota's U.S. engineering group, also wouldn't point to a North American model being developed within a year.

`Design Freeze'

The goal is to be able to start production in as little as 12 months from ``design freeze,'' or when the styling and engineering work on a new model is approved, Ichihashi said in an interview in New York.

The industry average for putting vehicles into production is between two and three years, said Ron Harbour, president of Troy, Michigan-based Harbour Consulting. Harbour, Liker, Deutsche Bank Securities analyst Rod Lache and Art Smalley, an efficiency consultant for the Brookline, Massachusetts-based Lean Enterprise Institute, all said Toyota already is a leader in development speed.

Honda Comes Close

Honda Motor Co., Japan's third-biggest automaker, comes closest to matching Toyota in that regard, said Harbour, Liker and Smalley.

``Most manufacturers are working toward a two- to three-year period,'' said Tom Wilkinson, a spokesman for General Motors. He didn't disclose GM's current average time target for vehicle development.

``We don't talk about timelines for two reasons: we consider it proprietary information, and like everyone else we're trying to speed it up,'' Wilkinson said.

Yuzuru Matsuno, a spokesman for Honda's U.S. unit, said the Tokyo-based company has developed models such as the Element wagon in as little as 12 months. ``Different models will take much longer than others,'' he said.

`An Absolute Nightmare'

Cutting development time to a year ``means savings of at least tens of millions of dollars,'' Harbour said. A shorter process means the company is tying up fewer financial and human resources on each product, and ideally allowing it to recoup costs faster by going to market sooner, he said.

``If they can do this, it's an absolute nightmare for GM and Ford,'' said Smalley, a manufacturing consultant and former Toyota engineer based in Huntington Beach, California. ``They can either lead you by putting new products on the market years before you, or if a you have a successful product

they can sprint and catch you in 12 months.''

The acceleration in development time has come from more extensive use of computer-based digital design, Watanabe, 63, said. Toyota has also improved its method of designing dies used to stamp metal parts for new models, among the costliest and most time-consuming elements of preparing a model for production, said Liker, who last month toured the company's main factories in Toyota City, Japan.

Software Savvy

Toyota, like all other automakers, uses software to design vehicles and individual parts, and simulate every step of production, Liker said. Toyota has been more successful than competitors at using those programs to identify potential production snags and design glitches that may occur when actual vehicle production begins, he said.

DaimlerChrysler AG's Chrysler ``was always the first to have the latest computer-aided design programs, but just having it isn't enough,'' Liker said. ``You have to have the right people involved in the program who have the ability to identify problems. That's the difference.''

Toyota's U.S. sales unit is based in Torrance, California. The company's American depositary receipts rose 97 cents to $86 in New York Stock Exchange composite trading at 4:01 p.m., a record high for the U.S. shares. They have gained 21 percent since June 27.

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