University of Waterloo STAT 221 – W. H. Cherry

Figure 11.11d. PROCESS IMPROVEMENT STRATEGIES: Japanese Management 4

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Jananese slowing auto exports to U.S.

By Paul Blustein Record news service

TOKYO – Are Japanese auto companies taking pity on their beleaguered U.S. competitors? The question surfaced recently following announcement by most major Japanese automakers that they are curtailing exports of cars to the United States. Honda Motor Co. said that during February and March it will trim U.S.-bound shipments of vehicles by 20,000 units a month, or about nine per cent of its regular output. Toyota Motor Corp. said it will probably cut exports by about eight per cent. Other companies issued similar announcements.

The manufacturers said their decisions were based on the fact that the American car market has been softening dramatically in recent weeks as a result of the Persian Gulf War

"This was a purely business decision. It was taken because the U.S. market is really declining," said Shinichi Tanaka, a Honda spokesman. Spokesmen for Toyota, Nissan Motor Co. and other companies likewise said their moves were strictly economic.

But the development has touched off considerable speculation that the companies, while having good financial reasons for reducing exports, are also trying to ease up on Detroit's Big Three, at least temporarily. Japanese automakers are described as concerned that they may suffer from a protectionist backlash if the U.S. recession causes, say, a bankruptcy filing at Chrysler Corp. or further factory shutdowns at General Motors Corp. or Ford Motor Co., both of which recently reported huge losses.

"Consideration is Given to the American

Auto Industry," stated a headline in today's *Mainichi Shimbun*, a major daily. The paper said the Japanese firms were reducing shipments to the United States partly because of the weaker market, but it asserted that another reason "is to give a shot in the arm to the ailing U.S. auto industry, thus offsetting heightening criticism of Japanese manufacturers."

Some industry experts agree, although they admit that hard evidence is slim. "It's a mixture of both" political and economic factors, said Keith Donaldson, an auto analyst at Salomon Brothers Inc's Tokyo office. "All the Japanese car companies are very concerned about the political situation." He noted that Japanese makers' share of the U.S. car market rose 2.5 percentage points, to 27.8 per cent, in 1990, at the expense of the Big Three. That market share seems likely to grow when Toyota and other Japanese makers expand their U.S. manufacturing capacity in the next few years.

Recent remarks by a top Honda executive, Shoichiro Irimajiri, tend to support the theory that politics is influencing Japanese industry's plans. "At the end of the 1980s, we realized that our production system had advanced too far compared to the Big Three or European manufacturers," Irimajiri said at a Honda press gathering in early January.

A few days earlier, he told the *Japan Economic Journal*: If we do our best, the Japanese share (of the U.S. car market) could grow indefinitely. But we should not push so hard as to drive U.S. rivals out of the market.

Honda officials maintain that Irimajiri's comments, while reflecting the company's views, are not related to the company's an-

nouncement that it would cut both exports and production at its Marysville, Ohio, plant. And government officials swear they made no efforts to influence companies.

"Not only the Big Three, but the Japanese companies are also suffering because of the heavy slump in the U.S. market," said an official of the Ministry of International Trade and Industry (MITI). Whatever the Japanese auto companies' motivations, the speculation surrounding their moves highlights the sentiment among some Japanese business leaders that they ought to be bending over backwards to make sure that their struggling American competition pulls through.

Kazuo Ibuki, chairman of Mitsubishi Bank, recently warned his fellow bankers against continuing the current trend of bringing money home from the United States to Japan. Japanese banks shouldn't drag down U.S. banks, which are suffering in part from the decline of U.S. business activity," Ibuki was quoted as saying on Jan. 11 in the *Nihon Keizai Shimbun*, Japan's leading economic daily newspaper. Cutting back Japanese bank assets in America would be tantamount "to returning evil for the good we have received from the U.S.," he said.

A top MITI official also was quoted recently as saying that Japanese industry should help its U.S. counterpart partly out of gratitude for America's postwar friendship and aid. In an interview, Yuji Tanahashi, director-general of the Industrial Policy Division, said Japanese firms should concentrate more on two goals: invest more in the United States, and bring more American engineers to Japan to learn better manufacturing techniques.

The article EM9108 reprinted above is of interest because it provides support for Deming's comments, quoted in Figure 11.10b on the lower half of page 11.60, that Japanese companies produce goods of higher quality at lower price and so represent a threat to the survivial of their American competitors. This is of particular concern when they do so in the U.S. with with American workers, as discussed in Figure 11.11a on pages 11.65 to 11.68. Coincidentally, the writer's personal automotive experience in Canada provides anecdotal evidence consistent with Deming's comments but subject to two caveats.

- The 'American' and 'Jananese' vehicles involved were very different.
 - The American vehicle was a passenger van on a pickup-truck chassis, with a 6-cylinder motor, 4-speed manual transmission and three rows of seats (seating seven adults) with appreciable cargo space to roof height behind the third seat. Its price was about \$9,000 and its fuel ecomomy over about 18½ years and 285,000 kilometres was about 16 miles per Canadian gallon. [At the time of this purchase, the American competing brand of a similar van offered only 3-speed manual transmission, with likely worse fuel economy.]
 - The Japanese vehicle was a compact hatchback with a 4-cylinder motor, 5-speed manual transmission and seating for five people (four adults was more realistic) with trunk space to roof height behind the back seat. Its price was about \$26,000 (including additional snow tires on alloy rims) and its fuel economy over 18½ years and 290,000 kilometres was about 46 miles per Canadian gallon.
- The two vehicles differed by 28 years in their date of purchase 1979 for the van, 2007 for the hatchback.

(continued overleaf)

The chequered life of the American van included the following events.

- * Among a list of items needing attention under warranty was a leaking oil pan, whose replacement involved lifting the motor; as it was reinstalled with its replacement oil pan, the vehicle front-end lowering under the motor weight hit a carelessly-placed safety jack, bending the steering tie rod upwards. The resulting unrecognized additional toe-in of the front wheels wrote off two front tires on a driving holiday from Waterloo, Ontario to the Canadian maritime provinces. Despite the incriminating deep *vertical* score on the *front* of the original tie rod, the dealer doing the warranty repairs disclaimed any responsibility for the tie-rod damage, the cost of the new tie rod and its installation, and the new front tires.
- * The differential crown wheel and pinion needed replacement at about 25,000 and 50,000 kilometres; normally, a differential is trouble-free for the vehicle life. At the second replacement, a (different) dealer discovered a mistake of a few thousands of an inch in the machining of the inner differential case the resulting misalignment of the crown wheel and pinion helical gears was the reason for their shortened life. The vehicle manufacturer would only agree to pay part of the second replacement cost, none of the first.
- * There was no camber adjustment on the front wheels; to adjust camber required bending the strut supporting each wheel with a 50-ton jack, an operation not permitted for a dealer.
- * The gas tanks were attached to the chassis *before* the cabin body was installed; when the gas tanks developed leaks later in the vehicle's life, the ends of their holding straps, needed to release the tanks for replacement, were inaccessible.
- * The starter motor, clutch and muffler each had to be replaced more than twice; when the gear ring on the flywheel was involved, its replacement required taking down the transmission.
- * The switch under the vehicle floor which controlled the reversing lights was under-specified for current, leading to internal contact welding the switch needed replacement about every two years at a cost initially of about \$50.
- * At a 5,000 kilometre oil change, the initially golden motor oil was black.
- * The vehicle came with *out* power steering. Over its life, the steering became progressively heavier; lubricating the king pins only temporarily reduced the problem. Heavy steering was a factor in why the vehicle ultimately became undrivable; had it come with power steering, it would likely have burned out the power steering pump or motor.
- * The floor mats were flat rubber with cotton batting glued underneath for sound deadening. In rain or snow, water from passengers' shoes ran under the edges of the mats and soaked into the cotton batting; with the mats' impermeable rubber top, this provided an enduring wet surface in contact with the sheet metal floor of the vehicle. Unsurprisingly, the two front-seat floors rusted through in less than five years; the rest of the cabin floor followed suit over the next few years. The vehicle only remained useable after about five years of age with ongoing floor repairs by the owner. [A friend with the pick-up truck version of the same vehicle discarded his vehicle after about eight years due to rusting through of its panels.]
- * At 18 or so years of age, the heavy steering, rusting and other deterioration rendered the van essentially unuseable, so it was sold for scrap.

The continuing (as of the end of 2025) life of the Japanese hatchback includes the following (non-)events.

- * No items required attention under warranty although components have been replaced under several later recalls.
- * The vehicle has its original starter motor, clutch and muffler.
- * At a 10,000 kilometre oil change, the oil retains its golden colour and is at its original level on the dipstick.
- * There is slight rust in the body seam behind each rear door, manageable with rust control spray.
- * Apart from regularly scheduled maintenance (twice or once per year), there have been two significant repairs, each of several hundred dollars.
 - The air fuel sensor failed and was replaced when the vehicle was nearly 11 years old.
 - The wiring harness in both driver's-side doors was replaced when the vehicle was 14 years old because of a failure of the rear-door power window to operate; it transpired that only the driver's door harness was actually faulty, resulting in unnecessarily doubling the cost of the repair and requiring three separate repair sessions.
- * For the first 100,000 kilometres, fuel consumption was 50 miles per Canadian gallon; its lifetime decrease reflects, in part, an increase in later years of the proportion of low-mileage in-town driving.
- * At 18½ years of age, the vehicle performance is little changed from its youth, and remains compatible with safe major highway driving (at, say, 120 km/hr).