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Unintended Acceleration: Toyota's Recall Crisis

The Crisis

On August 28, 2009, Mark Saylor, an off duty California Highway Patrol officer driving on Route 125 in a 2009 Lexus ES350 sedan on loan from his Toyota dealer, lost control of his car as it accelerated to speeds of 120 mph. Saylor, his wife Cleofe, their 13-year-old daughter Mahala and 38-year-old brother-in-law Chris Lastrella were killed instantly. Most chillingly, the desperate calls of help from Mr. Lastrella to a 911 operator were recorded live and released on the internet.¹

"We're in a Lexus. . . and we're going north on 125 and our accelerator is stuck. . . we're in trouble. . . there's no brakes. . . we're approaching the intersection. . . hold on. . . hold on and pray. . . pray."

Unable to stop, Saylor's vehicle sped ahead into an intersection, struck a vehicle, went through a fence, over an embankment and into the bed of the San Diego River.²

The report on the fatal accident from the U.S. National Highway Transit Safety Administration (NHTSA) mentioned improperly installed floor mats, noting that the accelerator pedal's lower edge was bonded to the floor mat, the brakes were worn down, and that the design of the pedal could have contributed to entrapment.³ In fact, the 2008 Lexus ES 350 Saylor was driving had been part of a September 2007 recall to replace the all-weather floor mats, shown to have potential to shift forward and cause the accelerator pedal to stick in a depressed position if improperly installed. The floor mats in Saylor's vehicle, however, were from a different Lexus model, a Lexus RX400h sports utility vehicle, which had more driver foot-space.⁴

On September 29th Toyota issued a recall and Consumer Safety Advisory to the drivers of eight models including the Toyota Avalon, Camry, and Tacoma, as well as the Lexus ES and IS, affecting about 4.2 million vehicles. The Advisory urged customers to remove their floor mats, regardless of make and model, while possible design changes were evaluated.⁵ NHTSA, for its

¹ A recording of the 911 call can be heard at <http://consumerist.com/2009/10/toyota-911-call-of-familys-fatal-lexus-crash-due-to-gas-pedal-stuck-on-floormats.html> [Last accessed July 27, 2011].

² *San Diego Union-Tribune*, August 31, 2009.

³ *Los Angeles Times*, October 24, 2009.

⁴ See Jeffrey K. Liker (with Timothy J. Ogden). 2011. *Toyota Under Fire. Lessons for Turning Crisis into Opportunity*. New York et al.: McGrawHill, p. 64.

⁵ See Liker, 67-69 and 123-4.

part, stated that the recall was in response to unintended acceleration (UA) incidents related to factors including the use of unsecured mats, the configuration of pedals in the affected vehicles and the processes necessary to turn off the engines in vehicles with keyless ignition.⁶

From the beginning, however, it was evident that NHTSA and Toyota disagreed on the proper response. In a letter sent to NHTSA on October 5th, Toyota stated that although they were willing to treat the campaign as a safety recall, they had yet to determine if any of the vehicles contained a safety-related defect. The following month, in a statement announcing it had begun mailing letters to customers detailing the safety recall, Toyota stated that “the letter, in compliance with the National Traffic and Motor Vehicle Safety Act and reviewed by the National Highway Traffic Safety Administration (NHTSA) also confirms that no defect exists in vehicles in which the driver’s floor mat is compatible with the vehicle and properly secured.” NHTSA quickly responded days later on November 5th with a public rebuke of Toyota for issuing “inaccurate and misleading statements asserting that no defect exists in the recalled vehicles.” According to NHTSA there was, in fact, an “underlying defect” involving the design of the pedal and the foot well. Subsequent media reports⁷ pointed out that NHTSA had investigated UA in Toyota eight times since 2003, with six of those cases closed without finding a defect and two resulting in the recall of 100,000 vehicles. On November 25, 2009 Toyota announces details of the recall to increase the distance between floor and pedal.⁸

Unintended Acceleration

The issue of unintended acceleration (sometimes labeled as unwanted, sudden, or runaway acceleration) was not new. In 1986 Volkswagen of America (VWoA) suffered a severe crisis regarding its Audi 5000 model. Unintended acceleration events in this model were linked to six deaths—children among them—and 700 accidents in the first half of the decade.⁹ This type of unintended acceleration occurred immediately after shifting the vehicle out of park, allegedly accompanied by simultaneous brake failure. Several media reports focused on the issue followed, including a *60 Minutes* segment in November 1986 titled “Out of Control.” As became clear later, the producers, in an attempt to visibly demonstrate sudden acceleration in an Audi 5000, had a hole drilled into the transmission so that they could pump in high-pressured air. Nevertheless, *60 Minutes* was the third highest rated program at the time, and its portrayal of runaway Audis, through alleged victims’ stories and unidentified simulations, proved catastrophic for the automaker as sales proceeded to plummet 60%.

By 1991, sales of Audis in the U.S. had dropped to 12,283, down from its high in the 1980s of 74,061. It took ten years for Audi to again reach its 1980s sales high. Audi was defending itself in more than 140 different suits with damage claims in excess of \$5 billion.¹⁰ Subsequent studies on unintended acceleration, however, concluded that driver error and/or human factor design errors were responsible, effectively exonerating Audi. The key problem was that drivers mistakenly continued to push the accelerator rather than the brakes, a behavior known as “pedal misapplication.” In response to this issue VWoA conducted two different recalls that installed a shift interlock, now a familiar safety feature (a driver needs to press down the brake pedal when shifting from park to drive), and replaced defective idle stabilizer valves.

⁶ *New York Times*, September 29, 2009.

⁷ *Los Angeles Times*, November 4, 2009.

⁸ These included shortening pedals by $\frac{3}{4}$ of an inch, removing floor padding, and developing replacement pedals, *New York Times*, November 25, 2009.

⁹ *BusinessWeek*, February 4, 2010.

¹⁰ *Wall Street Journal*, December 18, 1989.

While many safety experts believe that driver error or floor mat entrapment is to blame for most cases of unintended acceleration, (Exhibit 1 and 2) media reports have repeatedly pointed towards others causes such as problems with electronic throttle controls (ETCs)¹¹, first developed by BMW in the 1980s. In contrast to an all mechanical system, ETC equipped vehicles use sensors to monitor the position of the gas pedal and to transmit that information to the engine control module and the ETC, causing the throttle to let more or less air into the engine's combustion chamber.¹² Cars using ETC have various control and fail-safe systems. Moreover, many of the concerns on the role of ETC also involve brake failure, a wholly independent system from ETC and engine control. Thus a situation of continued acceleration while the driver pushed down the brakes would amount to the failure of two independent systems, one electronic, the other hydraulic. During the Toyota crisis the U.S. car magazine *Car and Driver* successfully tested the ability of Toyota Camry brakes to slow down the car while the accelerator was fully jammed to the floor.¹³ That said, leading car insurance providers such as *State Farm* had noticed an increase in reports of unintended acceleration in Toyota cars after the introduction of ETC, though the exact cause of the increase in reports was not clear (Exhibit 3).

Toyota Motor Corp.

The origin of Toyota can be traced back to the late 19th century when Sakichi Toyoda created Toyoda Loom Works, which utilized Toyoda's patented automatic loom (the first in Japan). Along with his son, Kiichiro, Toyoda created and established the principles that guide Toyota to this day:

The Original Toyoda Precepts (1935)¹⁴

1. Be contributive to the development and welfare of the country by working together, regardless of position, in faithfully fulfilling your duties.
2. Be ahead of the times through endless creativity, inquisitiveness, and pursuit of improvement.
3. Be practical and avoid frivolity.
4. Be kind and generous; strive to create a warm, homelike atmosphere.
5. Be reverent, and show gratitude for things great and small in thought and deed.

The company created its first automobile prototype in 1935 and began selling the first mass-market vehicle in 1947. After financial losses amid a Japanese economic recession in the 1950s, Toyota improved its operation procedures to such a degree that it has avoided losing money ever since. Toyota established Toyota Motor Sales U.S.A., Inc. in 1957 and, for the first time, began producing cars specifically for the American market.

The Toyota Way

At the basis of Toyota's success lies its much admired Toyota Production System (TPS). The objectives of TPS are to offer the highest quality at the lowest cost and shortest lead time. With its origin traced back to Sakichi Toyoda's original precepts, the TPS instilled an inherent

¹¹ *Los Angeles Times*, November 29, 2009.

¹² Liker, p.71-72.

¹³ Dave Vanderwerp. "How to Deal with Unintended Acceleration", *Car and Driver*, December 2009. See also Liker, p. 88.

¹⁴ David Magee, *How Toyota Became #1* (New York, NY: Penguin, 2007) 14.

competitive advantage in Toyota's production process, due in a large part to its focus on lean operations and continuous improvement. Lean operations and the Toyota Production System provide the backbone to the Toyota Way:

There are two pillars of the Toyota Way¹⁵:

1. Continuous Improvement – *Kaizen*
 - a. Challenge – we form a long-term vision, meeting challenges with courage and creativity to realize our dreams.
 - b. *Kaizen* – we improve our business operations continuously, always driving for innovation and evolution.
 - c. *Genchi genbutsu* (“go and see for yourself”) – we go to the source to find the facts to make correct decisions, build consensus, and achieve our goals.
2. Respect for People
 - a. Respect – we respect others, make every effort to understand each other, take responsibility, and do our best to build mutual trust.
 - b. Teamwork – we stimulate personal and professional growth, share the opportunities of development, and maximize individual and team performance.

An important component of Toyota's management system is its approach to problem solving, the Toyota Business Practices, which consists of eight steps:

Plan

1. Define the problem relative to the ideal.
2. Break down the problem into manageable pieces.
3. Identify the root cause.
4. Develop alternative solutions.
5. Evaluate and select the best solution based on what is known.

Do

6. Implement the solution (on a trial basis if possible)

Check

7. Check the impact of the solution

Act

8. Adjust, standardize, and spread based on what has been learned.

Toyota in the 21st Century

*"It may come as a shock," he says, "but if we're content with the little-by-little approach of kaizen, then we can't win."*¹⁶

¹⁵ *Harvard Business Review on Manufacturing Excellence at Toyota*, 2008, 26-27. See also Liker, 8-17

¹⁶ *Businessweek*, April 9, 2001.

Katsuaki Watanabe made this statement in 2001 when introducing Toyota's aggressive cost-cutting strategy called the "Construction of Cost Competitiveness for the 21st Century (CCC21)"—a response to Carlos Ghosn's efforts at Nissan. Ghosn, or "le cost killer," had just engineered a Nissan turnaround thanks in part to a 10% cost reduction on supplier parts that resulted in \$2.25 billion in savings. Toyota also faced the pressure of competitors forming global alliances that, through efforts like joint purchasing and/or benchmarking (comparing best practices), reduced their costs and increased efficiency.

Watanabe, then a Senior Managing Director and later President of Toyota Motor Corp., led the newly defined plan towards its goal of a 30% cost reduction, or \$8 billion, by the end of fiscal 2005. This would be half the time it would normally take Toyota to garner those savings. Success would require Toyota to lean heavily on the unique relationship with its network of suppliers to reduce waste through process improvement. Watanabe proved adept at waste reduction, though, enhancing his reputation and earning him the nickname "Mr. Kaizen" for his unique ability to uncover hidden costs. By 2006, CCC21 initiatives resulted in a \$10 billion reduction of manufacturing costs.

The success of CCC21 was evident as profits climbed, and Watanabe was named President of Toyota Motor Corporation in 2005. Watanabe succeeded the transformative Fujio Cho, who implemented CCC21 and led Toyota towards a more global manufacturing system.

Watanabe quickly announced a new cost reduction program called Value Innovation. Value Innovation aimed to reduce the cost of components by incorporating several parts into an integrated system and eliminating anything unnecessary.

Toyota had also started to define aggressive growth targets, starting in 1995 when the company had a global market share of 7.3%. By 1998 its global market share had climbed to 9.7%, which led to a new growth target of 15% global market share by 2010, with expected growth in Brazil, Russia, India and China.¹⁷ In the U.S., Toyota began 2000 with a U.S. market share of 9%. By the end of 2003, Toyota had reached an 11% market share in the U.S. and surpassed Ford to become the world's second-largest automaker, selling 6.78 million vehicles. Toyota had a net profit of nearly \$17 billion in 2006, and its market capitalization as of May 10, 2007 was one and a half times that of GM, Ford, and DaimlerChrysler combined (\$186.71 billion). By 2008, Toyota's rapid expansion resulted in a 16.5% market share in the U.S., second only to GM. Globally, however, Toyota surpassed its rival by 616,000 vehicles sold to earn the title "world's largest automaker."¹⁸

Perils of Growth?

With a rise in recalls, industry observers began to speculate whether Toyota relinquished its lead in quality with its extensive cost-cutting measures. 2005 saw Toyota recall over two million vehicles, twice as much as it did in 2004. In fact, between 2004 and 2006 the company recalled more vehicles than ever before. In 2009 Toyota disbanded a high-level task force created in 2005 to investigate quality issues. The stated reason was that quality was so much part of the company's core that a special task force was unnecessary.¹⁹

In 2006, police in Kumamoto, Japan filed a criminal case against Toyota in the wake of a 2004 accident that injured five people, believing Toyota officials engaged in a cover-up. The accident happened when a steering relay rod in a Hilux Surf snapped, causing the driver to cross over the

¹⁷ According to leaked internal document titled "Global Master Plan," *Wall Street Journal*, November 13, 2006.

¹⁸ *New York Times*, January 22, 2009.

¹⁹ Robert E. Cole. 2011. "What Really Happened to Toyota?" *MIT Sloan Management Review* 52 (4)-28-35.

median and into oncoming traffic. An investigation revealed that Toyota was aware of a defective relay rod as early as 1996, but chose not to issue a recall because the problems occurred only in “unusual and extreme conditions.” Toyota recalled the vehicle in the crash, a Toyota Hilux Surf (4Runner), two months after the accident.²⁰

Although Toyota was not found guilty and no fines were issued, the Japanese government did reprimand the company and called for improved recall practices. At a press conference to address the issue and the “ballooning” number of recalls, President Katsuaki Watanabe bowed deeply and apologized.

“I take this seriously and see it as a crisis,” said Watanabe. “I want to apologize deeply for the troubles we have caused.”²¹

Toyota responded to the government sanction aggressively, stating that it would upgrade a new data network for sharing technical information and product quality reports from customers in order to handle improvements and recalls more efficiently. It would also increase staff at its quality control headquarters. Toyota said it would store information for 20 years on the results of its consideration of, and decisions on, recall cases.

Although Toyota halved the number of recalls in 2007 from its high of 2.1 million vehicles in 2005, it also had five separate recalls in Japan.²² That October, the same month of Toyota’s fifth recall in Japan, Consumer Reports announced in their influential Annual Car Reliability Survey that they would no longer recommend new or redesigned Toyotas based solely on the automaker’s past reliability. David Champion, head of Consumer Reports auto testing, said that “Toyota will likely address its quality issue successfully, but it will take several years of average to above-average quality ratings to regain the magazine’s automatic recommendation.” J.D. Power and Associates also noted a decrease in its Initial Quality Survey. (See Exhibit 4.) In 2010 Toyota had 117 defects per vehicle, compared to 101 in 2009. However, quality had improved at Toyota from 2008 to 2009.²³

The next year the global financial crisis hit, causing Toyota’s sales to precipitously fall by 21%. For the first time since 1950, Toyota had to announce an operating loss for fiscal year 2009. It was worse than originally predicted at \$4.4 billion, compared to a \$17.7 billion in profit from the previous year. Although he presided over three years of consecutive record profits, Katsuaki Watanabe was replaced in June 2009 by Akio Toyoda, grandson of Toyota founder Sakichi Toyoda.

Continued Media Coverage

The U.S. media continued to cover the issue of Toyota quality and safety during the Fall and Winter of 2009 and 2010. One prominent example was an L.A. Times article published in late December 2009 which linked recent UA events in Toyota and Lexus vehicles with 19 fatalities, more than any other automaker combined.²⁴ The article claimed that “although the sudden acceleration issue erupted publicly only in recent months, it has been festering for nearly a

²⁰ *Wall Street Journal*, July 12, 2006.

²¹ *New York Times*, July 21, 2006.

²² *New York Times*, January 15, 2008.

²³ J.D. Power and Associates. 2010 “J.D. Power and Associates 2010 U.S. Initial Quality Study.” Westlake Village, CA: J.D. Power and Associates 2010. See also Robert E. Cole. 2011. “What Really Happened to Toyota?” *MIT Sloan Management Review* 52 (4)-28-35.

²⁴ Ken Bensinger and Ralph Vartabedian. “Toyota found to keep tight lid on potential safety problems.” *The Los Angeles Times*. December 23, 2009.

decade.” Further, the article interviews motorists who claim Toyota hid safety information from them. Toyota responded to the article as follows:

While outraged by the Times’ attack, we were not totally surprised. The tone of the article was foreshadowed by the phrasing of a lengthy list of detailed questions that the Times emailed to us recently. The questions were couched in accusatory terms.

Despite the tone, we answered each of the many questions and sent them to the Times. Needless to say, we were disappointed by the article that appeared today, and in particular by the fact that so little of our response to the questions appeared in the article and much of what was used was distorted.

*Toyota has a well-earned reputation for integrity and we will vigorously defend it.*²⁵

Just before the end of the year, another Toyota accident made the headlines. The accident occurred on December 26th, when four people died after their Toyota Avalon went off the road and landed upside down in a pond—with the floor mats found locked in the trunk.

New concerns arose in the context of Toyota’s willingness to share data from the event data recorder on board, or “black box.” Event data recorders are designed to record data like brake pedal application and degree of application of accelerator pedal for the previous several seconds of activity before and/or a fraction of a second after a crash or near-crash situation.²⁶

Toyota, like other Japanese car manufacturers, had a proprietary format that required special data readers. Toyota claimed to have only one such device in the US that required two passwords. Toyota outlined its policy as follows:

*Given the fact that the readout tool is a prototype and has not been validated, it is Toyota’s policy not to use EDR data in its investigations. However, Toyota has used the readout tool under certain circumstances.*²⁷

In the case of the Saylor crash, the data was deemed irretrievable due to the extensive damage. Even when readout of the data was possible, Toyota only did so when there was a court order, at the request of NHTSA, or for law enforcement under special circumstances. They also were skeptical about the ability of the data to reconstruct the details of the accident:

*It was not designed as a tool for accident reconstruction, and we do not believe it yields consistent or reliable data.*²⁸

The Sticky Pedal Recall

According to Secretary of Transportation Ray LaHood, NHTSA received reports of Toyota pedals that were slow to return or sticking in November 2009. This issue pointed to a potential mechanical problem related to the pedals and was unrelated to the issue of floor mats previously identified. Before NHTSA had decided on whether to open an investigation, Toyota contacted the agency on January 16th detailing essentially that same mechanical problem with pedals from supplier CTS. NHTSA then urged Toyota to order a recall. Toyota announced this new recall on January 21, 2010, covering 2.3 million vehicles.

The issue of sticky accelerator pedals was not news for Toyota.²⁹ During 2008 Toyota’s European operations has investigated reports related to accelerator pedals that were slow to

²⁵ Toyota press release, “Setting the Record Straight,” December 23, 2009.

²⁶ Toyota press release, “Setting the Record Straight,” December 23, 2009.

²⁷ Toyota’s published answers to questions submitted by *Los Angeles Times* can be found here:

http://pressroom.toyota.com/images/document/LA_Times_questions_and_Toyota_answers.pdf

²⁸ *Newsweek*, “Toyota’s Murky Data,” February 22, 2010.

return and were stuck in a half-way position. Toyota's engineers in Japan investigated the issue and concluded that the stickiness tended to happen in high-heat or high-humidity conditions. Indeed, the first reports came from right-hand driven vehicles where the side heat duct was close to the accelerator pedal. Toyota's engineers concluded that the sticky pedals were a customer satisfaction issue, not a safety issue, as they did not affect the ability of drivers to stop their vehicles. Toyota therefore did not issue a recall, but decided to design alternative versions of the pedal that were to be introduced into production in late 2009. This decision was further buttressed by the fact that all concerns about sticky pedals were reported by unhappy customers. There were no cases known to have been involved with any accidents.

In late 2009 Toyota received similar reports about sticky pedals from US customers and concluded that the same conditions of high-humidity or high-heat were present in each case. Some managers in Toyota's US operations pushed for a broader communication effort, but headquarters continued to view the issues as a customer satisfaction problem. NHTSA, however, continued to push for a recall which occurred on January 21, 2010.³⁰ On January 26th, Toyota announced that it would temporarily stop building and selling the affected vehicles in the North American market and on January 27th further expanded the recall to cover an additional 1.1 million vehicles. The models affected by the recalls accounted for more than a million sales in 2009, 57% of Toyota's American total for the year.³¹ Toyota supplier CTS, the manufacturer of the recalled pedal, stated that the "rare slow return pedal phenomenon, which may occur in extreme environmental conditions, should absolutely not be linked with any sudden unintended acceleration incidents."³² (Exhibit 5)

Toyota did not have an immediate solution to the problem as engineers had focused on developing new designs for new vehicles rather than replacements for existing cars. And there were not enough new pedals available for a replacement solution. After round-the-clock work by engineers, Toyota announced on January 28, 2010 the use of a reinforcement bar, made of steel, to reduce friction.

Akio Toyoda, President of Toyota Motor Corp. since 2009 and grand-son of the founder, apologized January 29th through a Japanese broadcaster, stating that he was "deeply sorry....We hope to come up with a clear explanation as soon as possible."³³ Our customers always come first for us and they can feel safe in our cars, even today." The following week, Secretary LaHood emphasized that Toyota only announced the recalls after NHTSA officials flew to Japan to "remind Toyota about its legal obligations." He added, "We're not finished with Toyota and are continuing to review possible defects and monitor the implementation of the recalls." He later added, "If anybody owns one of these vehicles, stop driving it. And take it to a Toyota dealer." LaHood later indicated that he was misquoted.

A New Problem

On February 3, 2010, the same day Secretary LaHood made his statement, NHTSA also announced that it had received more than 100 complaints about braking performance in the 2010 Toyota Prius.³⁴ The issue was related to the instance—lasting about three-hundredths of a

²⁹ This account is based on Liker, 95-100.

³⁰ NHTSA subsequently issued a fine to Toyota of more than \$16 Million, the largest fine for an automobile maker ever and the largest amount allowed by law.

³¹ *New York Times*, January 26, 2010.

³² http://www.ctscorp.com/publications/press_releases/nr100129.htm [Last Accessed July 27, 2011]

³³ Toyoda had previously apologized on October 2, 2009 for the death of the Saylor family and to customers affected by the floor mat recall.

³⁴ Liker, 112-114.

second—when the Prius antilock braking system (ABS) took control from the regenerative braking system, which captures braking energy to power the hybrid's electric engine. During this transition the pedal momentarily became “soft,” creating an impression for the driver as if the brakes were not working. The company had become aware that customers did not like the feel of the brake during the transition and had subsequently changed the ABS software. However, Toyota engineers viewed the issue as customer satisfaction issue rather than a safety problem as there was no effect on braking performance. The media continued to cover the issue and, on February 9, Toyota announced a recall to change the software on 437,000 Prius vehicles already on the road.

The Aftermath

On February 5th Toyota Motor Corp. President Akio Toyoda announced the creation of a global quality task force to conduct quality improvement activities region by region. The task force, with a broad mandate spanning from improving quality to enhancing communication, would be chaired by him and would involve inside and outside experts.

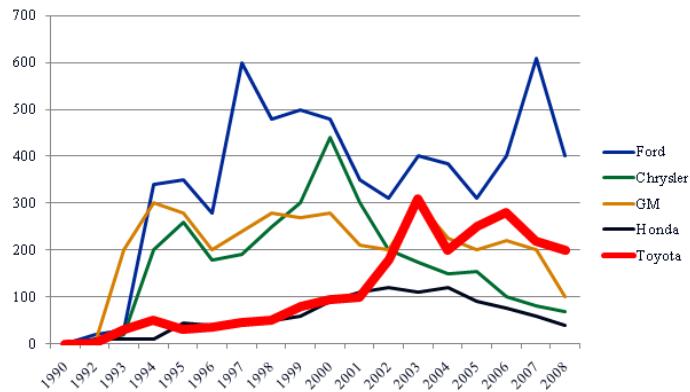
The U.S. Congress subsequently held various hearings on the recalls. President Akio Toyoda was asked to testify on February 24th. During his testimony he apologized to anyone who had been injured and promised to further improve the quality of Toyota vehicles worldwide.

Between January 19th and February 23rd, Toyota lost \$35 billion in stock value (Exhibit 6). Used-car values declined, on average, 3% during this time, with between 20% - 30% of surveyed car buyers who previously considered buying a Toyota defecting to another brand. Toyota responded by offering competitive incentives in March like zero percent financing and special lease deals. The incentives successfully pushed Toyota's purchase intent from a 9.7% low following the recalls to 18%, according to Edmunds.com.³⁵

On March 2010, NHTSA enlisted the support of NASA in analyzing the Toyota ETC system to determine whether it may have played a role in the unintended acceleration cases. The task force was supposed to report back in early 2011.

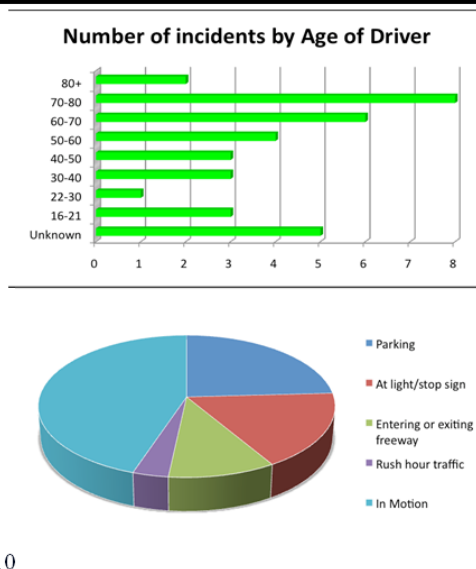
³⁵ Edmunds.com Press Release, March 4, 2010

Exhibit 1: Unintended Accelerations 1990- 2008



Source: NHTSA

Exhibit 2: Facts on Unintended Acceleration



Source: Business Insider, March 13, 2010

<http://www.businessinsider.com/a-deep-dive-into-toyota-sudden-acceleration-accident-stats-2010-3>

Exhibit 3: ETC and UIA Claims

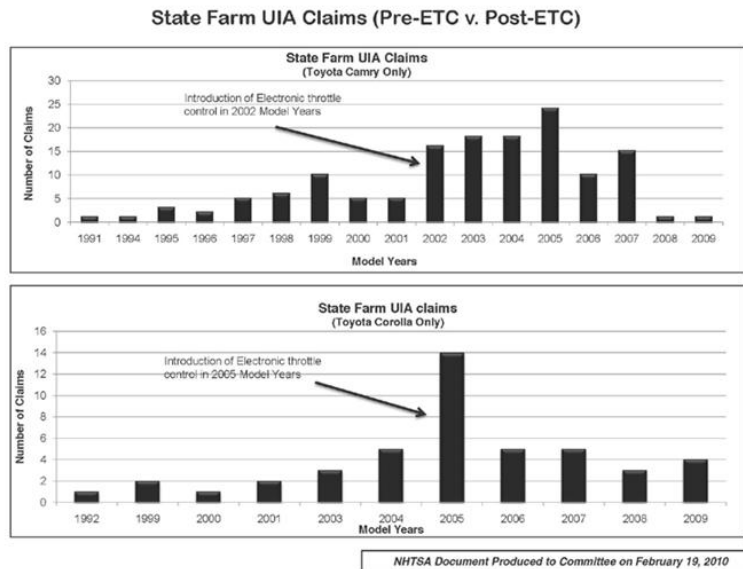
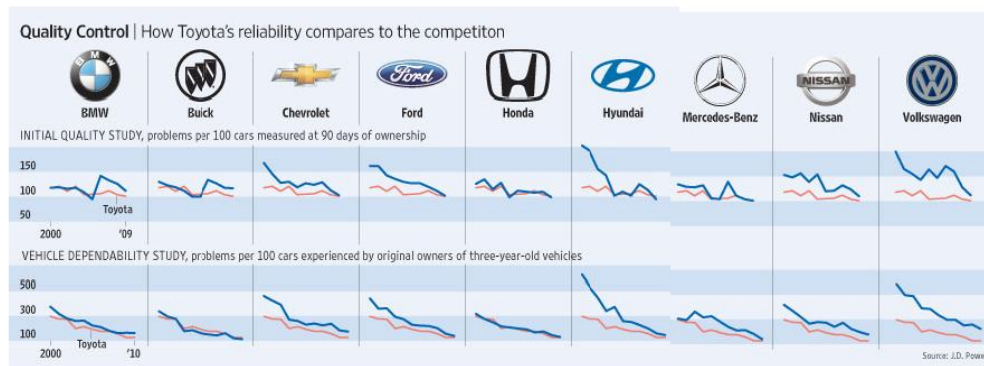


Exhibit 4: Quality Trends



Source: Wall Street Journal, April 13, 2010

<http://online.wsj.com/article/SB10001424052702303395904575157452266613406.html?KEYWORDS=toyota+crisis+aggravates>

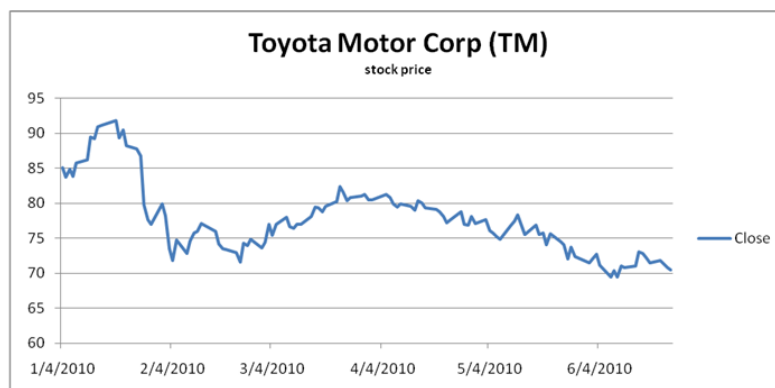
Exhibit 5: Statement by Pedal Supplier CTS

- ◆ *CTS Corporation today expressed its “deep concern that there is widespread confusion and incorrect information” about the role of CTS-manufactured gas pedals in the media coverage of the recent Toyota recall.*
- ◆ *CTS stated that since the problem of sudden unintended acceleration has been reported to have existed in some Lexus vehicles and Toyota vehicles going back to 1999 when CTS did not even make this product for any customer, CTS believes that the rare slow return pedal phenomenon, which may occur in extreme environmental conditions, should absolutely not be linked with any sudden unintended acceleration incidents. CTS is also not aware of any accidents and injuries caused by the rare slow return pedal condition, to the best of its knowledge. CTS wishes to clarify that it does not, and has never made, any accelerator pedals for Lexus vehicles and that CTS also has no accelerator pedals in Toyota vehicles prior to model year 2005.*
- ◆ *“We are disappointed that, despite these facts, CTS accelerator pedals have been frequently associated with the sudden unintended acceleration problems and incidents in various media reports,” said Dennis Thornton, CTS Vice President and General Manager of Automotive Products Group. Toyota itself has also publically stated that this recall is separate from the earlier recalls which were done to remedy sudden acceleration in vehicles.*
- ◆ *CTS and Toyota continue to work closely in our partnership to resolve the slow return pedal phenomenon.*

Source: CTS News Release, January 29, 2010

http://www.ctscorp.com/publications/press_releases/nr100129.htm

Exhibit 6: Toyota's Stock Price



Source: US ADR

Preparation Questions

1. Assess Toyota crisis response strategy.
2. Compare Toyota's approach with Mercedes's response in the context of the A-class and the Moose Test. Details on the Mercedes strategy can be found in Daniel Diermeier. 2011. *Reputation Rules: Strategies for Building Your Company's Most Valuable Asset*. New York: McGrawHill, Chapter 2.
3. What should Toyota do now?
4. What are the deeper reasons for the crisis? How should Toyota address them?