Toyota Unintended Acceleration Case

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Toyota has recalled several of its vehicles because of unintended acceleration that led to the deaths of innocent people. Toyota eventually recalled hundreds of thousands of its automobiles due to floor-mat problems, brake problems, and sticky gas pedals.

The Toyota case involved possible problems with the gas-pedal mechanism that could cause the accelerator to become stuck, regardless of whether the car had a floor mat. Toyota Company said that in rare cases, the gas-pedal mechanism could wear down, resulting in the accelerator becoming harder to press, returning to its position more slowly, or, in some cases, getting stuck. The gas pedals were too close to the floor mats, and there was insufficient space between them and the floor mat. Ultimately, poorly designed floor mats were also implicated; Toyota initiated a huge recall globally to resolve problems attributed to defective accelerators. Floor mats were becoming stuck in the gas pedals and causing problems with braking in Prius hybrid models. Around 8 million Toyota trucks and vehicles were called back for repairs. Many drivers criticized vehicles for accelerating uncontrollably at high speeds during driving and passing through intersections fast enough to make it seem as though their vehicles were running on two tires. Toyota said that, because of a mechanical problem associated with wear and certain environmental conditions, the accelerator pedal could occasionally stick. Nearly 10,000 Toyota Prius hybrid owners had, by then, contacted a hotline because of concerns about the vehicles (Koopman, 2014).

Methodology

Statistics and data were gathered from online sources with the assistance of several selected internet search engines such as Google, Yahoo, and Bing and different internet browsers such as Mozilla Firefox, Opera, and Google Chrome. Collected data comprising statistics on recalled cars were used. Toyota's vehicle recalls were initially investigated with the assistance of the United States National Highway Traffic Safety Administration (NHTSA) and the National Aeronautics and Space Administration (NASA) (Kane, Liberman, DiViesti, & Click, 2010).

Recall Data

Toyota announced the recall of around 5.2 million cars for pedal-setup and floor-mat problems and a further 2.3 million cars for accelerator-pedal problems. Around 1.7 million cars were subject to both recalls. Several people claimed that Pontiac and Lexus models were also affected by recalls. The next

day, Toyota broadened the recall to include 1.8 million cars in Europe and more than 75,000 vehicles in China. By that time, the total worldwide number of vehicles recalled by Toyota stood at around 9 million. Sales of several recalled car models were postponed for many weeks because of the accelerator-pedal recall, with vehicles waiting for replacement parts. Toyota recalled nearly 8 million cars globally to correct issues with ill-fitting floor mats that could trap the accelerator pedal and to modify throttle pedals that had a tendency to stick or return slowly to their normal positions (Linebaugh & Searcey, 2010). Several of the vehicles affected by the recalls are listed below.

- RAV4,
- Avalon
- Corolla,
- Camry,
- Sequoia
- Lexus,
- Matrix,
- Highlander,
- Tundra,

The National Highway Traffic Safety Administration (NHTSA) examined software installed in Toyota engine processors to determine whether a software-design error might command the controls to open without input from drivers. Such unintended acceleration was responsible for numerous accidents and deaths over many years, culminating in the recalls. NHTSA investigated whether the source of unintended acceleration was a mechanical fault involving pedals and floor-mat arrangements. According to an earlier NHTSA study, the problem had caused a total of 16 accidents, three deaths, and more than seven injuries. Consequently, questions arose as to why Toyota had not used this information as a warning to recall cars earlier but instead delayed the announcement. Toyota said that it believed the problem was unlikely to occur in cars sold in the United States because American driving cycles were significantly different from those in Japan. Once the company received more than 50 complaints on the matter, it reportedly notified NHTSA of the issue within the period allowed by law. NHTSA imposed a $16.4 million fine on Toyota for failing to inform the agency of the known unintended-acceleration matter within the required time. Since then, Toyota has been more forthcoming with information about what it claimed to know and when it knew it. In the meantime, Toyota’s crisis created an opening for additional carmakers. General Motors, Hyundai, and Ford all sought to claim portions of Toyota’s declining market share. The issue of unintended acceleration involving Lexus and Toyota automobiles was continuously and methodically examined by NHTSA. Toyota also worked with NASA to examine the problems. NASA examined several possible avenues that could increase engine RPM (revolutions per minute) (Heller & Darling, 2012).

Congressional decisions

In February 2010, Congress initiated a series of inquiries into the issue of unintended acceleration in Toyota automobiles. Senate Commerce Committee Chairman Jay Rockefeller of West Virginia outlined certain measures for the Department of Transportation and Congress, including taking another look at the TREAD Act, requiring brake-override technology on new vehicles, requiring automobile manufacturers to provide the essential equipment for investigators to read electronic data recorders, and obliging senior managers of automobile corporations to personally confirm that evidence the company provided to NHTSA was comprehensive and accurate. Consumer advocates recommended wider changes, including new standards for accelerators and electronics-based testing, the required installation of event data recorders, and the gathering of further evidence (Kane et al., 2010).

Utilitarianism

Utilitarianism is a philosophical framework that says decisions should be made based on the overall consequences of actions and how they influence everybody. It emphasizes making decisions focused on producing better outcomes for everyone, or for as many people as possible. These principles mean that a company should make decisions based on the consequences for the corporation as a whole, its stockholders, staff, and customers. Utilitarianism suggests that governments and companies should look for a balance among sustaining shareholder profits, protecting the end users of cars sold by Toyota, and supporting Toyota staff. Toyota could have applied a utilitarian approach by addressing sudden-acceleration issues with customers as soon as the corporation became aware of them. Toyota could have prioritized the safety of its customers and ensured that cars operating on the road were working correctly. By considering utilitarianism as a consequentialist moral philosophy and studying Toyota's actions and their consequences, the negative outcome was the absence of prompt action for the overall good.

Solutions from Toyota to fix the problems

Toyota engineers rigorously tested a solution that was simple and effective. A precisely cut steel reinforcement bar could be connected to the accelerator-pedal assembly, thus eliminating the extra resistance that had caused pedals to become stuck in exceptional cases (Gokhale, Brooks, & Tremblay, 2014).

Most companies should pursue customer satisfaction rather than aiming only to generate more and more profit. Pride and the decision to overlook quality-related warnings when failures are occurring are also problems faced by many companies. Toyota did not take sufficient action because of a number of circumstances, and the media outcry eventually became loud enough to overcome the company's resistance. It might be that rapid growth and a focus on excellence contributed to Toyota's crisis, but the company also needed to examine the quality of its management, its choice of

technology, and its willingness to listen to warning signs. Organizations and companies should maintain design and engineering information, as well as traceability data, that can be shared with suppliers and dealers for effective root-cause analysis.

References

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