

## **Michigan DECA Ethics Team Event (ETH) 2019 Case Study**

### **Case Situation**

Volkswagen's board members set an ambitious goal to become the world's top automobile manufacturer. They met with the company's chief executive officers, leaders, and top engineers to develop the company's business strategy and set an unrealistic deadline of six months to complete all new Volkswagen prototypes and have them ready for final safety, quality, and performance tests.

Dominic, the board president, holds great power due to his family's controlling interest as a majority stock holder in the company. He leads in a very authoritative style and regularly convinces board members to fire employees who question or oppose him.

Anton, the company's acting CEO, and other executives often secretly question Dominic's ability to make sound business decisions because he does not possess any engineering or business background. As acting CEO, Anton has the power to override Dominic's decisions, but he rarely does so for fear of being fired.

Luca, the head of engineering, informs all the engineering teams about the tight deadline and puts two engineers in charge: Elena and Erik. Both are excited to develop an innovative, new diesel engine that meets the company's fuel efficiency goals.

After a few weeks, the team struggles with the engine design. They have built an engine that reaches the required fuel efficiency goals, but it produces too much pollution to meet environmental regulations.

While Elena and Erik continue to work on the engine, other departments get impatient and frustrated since they cannot move forward with production until the engine is finished. To overcome the stalled production process, Elena comes up with an idea to move production along, while the engine is still in process.

Working with a software company called Xcele, Elena creates a software program known as a "defeat device," since it masks the emission of pollutants. With the software in place as a temporary measure, production teams can move forward with testing various safety, quality, and performance elements of the vehicles – giving them a much greater chance of reaching their deadlines.

Elena persuades Xcele to produce the software by convincing Volkswagen's board members to create and sign a legal agreement that Volkswagen would not allow the software to be installed on cars sold to consumers. Instead, the technology would be used only in testing processes. Using the "defeat device," the engineering teams

complete all the initial safety, quality, and performance tests in record time, while the engineers continue to work on fixing the engine.

With the final inspection deadline just three weeks away, Erik and Elena still have not been able to create an engine that reaches both fuel efficiency and environmental standards. Erik suggests they leave the “defeat device” in place so that the diesel engines appear to stay below required emissions levels. This will satisfy management and give the team more time to develop a solution. He tells Elena that it is common for Volkswagen’s lead engineers to fake test results during the inspection phase. He also tells her that, if they don’t meet their goals, they will likely be fired. Elena decides to leave the “defeat device” installed for the final inspections and continues to work on solutions.

Elena and Erik are unable to find a solution by the deadline, and production of the diesel cars is scheduled to begin. Elena informs Luca, the head of engineering, about the situation. Luca does not show any concern about the deception and tells her that he will find a solution by asking the board to delay the market release date for the diesel vehicles because some of them might have faulty air pollution control devices.

Anton, the CEO, agrees with Luca’s recommendation and suggests that production be halted until the company can assess the situation. Dominic, on the other hand, disagrees with Luca’s recommendation because the new diesel models have some of the highest fuel efficiencies ever achieved, and he is anxious to get them to market. Instead, Dominic suggests that the company recall any defective vehicles on the market. He considers this a small price to pay for all that the company will gain.

Anton and all the executives accept Dominic’s decision to proceed. Luca decides it’s too risky to reveal the “defeat device” now because it would just lead to a big scandal. It could result in many people being fired and would create financial ruin for the company, its suppliers, and even Germany’s economy. So, the company sells diesel cars with the “defeat device” in place, meaning the cars actually exceed pollution-control requirements.

When Elena raises more concerns, Luca explains the problem can be dealt with through a recall. He tells her to just continue working on a solution so that if the affected cars are recalled, the engine flaws can be fixed, and the “defeat device” software removed. He feels that there is little risk to the company since the “defeat device” is nearly undiscoverable, hidden inside over 100 million lines of code that run the cars’ computer operating systems. Besides, he is sure that the engineering team will be able to find a solution to fix the flaw.

When the EPA discovers the cars are emitting 10-40 times more nitrous oxide than allowed, a huge scandal develops. Volkswagen’s board then conducts an investigation

and discovers that the “defeat device” was used to mask emissions of pollutants on a half-million VWs in the U.S. and over 10 million VWs worldwide. Many of the leaders say that they were unaware that the device would be used in this deceptive way and feel that the engineers are at fault.

The situation has the company facing devastating consequences—several lawsuits, costly recalls, plummeting stock prices, and a seriously tarnished image and brand name. Top executives are facing pressure to resign and might even face personal legal action. The board discovers that Elena was the one responsible for the development of the deceptive software and permitted it to be installed.

### **Suggested Questions**

Who should be held responsible for the scandal and why?

What ethical issues are in the case?

Is it ethical to use power when you are not qualified to make well-informed business decisions?

Is it ethical to develop software that has the potential for misuse?

How can employees balance respect for authority with ethical behavior?

How can a company balance its need to be profitable with concern for the environment?

What could the board have done to prevent its employees from engaging in unethical behavior?