ASSIGNMENT 1

Question 1. Research and summarize the following:

a) the key events that led to the eventual outcome, including the key leaders and engineering staff who were involved:

In September of 2015, Volkswagen admitted to installing “defeat devices” in 11 million vehicles worldwide for the express purpose of cheating nitrogen oxide (NOx) emissions tests. These devices were created due to Volkswagen engineers’ inability to meet the tightening of US NOx emissions standards in 2004. The function of these devices was to recognize when a vehicle was undergoing an emissions test and put the engine and ECU in a “safe mode” that would reduce NOx emissions enough to pass. A research group at the University of West Virginia was tasked with comparing the real-world emissions of diesel cars. Their testing indicated that Volkswagen’s diesel engines were producing up to 40 times the NOx compared to what was allowed by law and claimed by Volkswagen. This study was published in 2014, prompting investigations by the EPA and California Air Resources Board (CARB).

While being fully aware of the defeat devices, VW’s General Manager in charge of the Environmental and Engineering Office Oliver Schmidt initially claimed that this was a simple software issue that could be fixed with a recall. His deception was revealed in August of 2015 when the head of VW’s Engineering and Environment Office in the Auburn Hills Stuart Johnson informed CARB regulators about the installed cheat devices. After Volkswagen, given no other choice, admitted the existence of the defeat devices, VW CEO Martin Winterkorn claimed no knowledge of the devices, and VW America CEO Michael Horn blamed a group of “rogue software engineers”.

b) the outcomes from the decisions that were made from a legal, financial and retribution perspectives

The claim of ignorance did not hold water as the US DOJ would eventually file criminal charges against 6 VW executives and managers in 2017. Only Oliver Schmidt was arrested and tried, and sentenced to 7 years in prison. The rest reside in Germany, which would not extradite to the United States. VW CEO Martin Winterkorn resigned 5 days after claiming to have no knowledge of the defeat devices and was formally charged by the US in 2018.

Volkswagen stock dropped 30% in the days after the scandal was revealed. They were forced to institute a buyback program for all affected vehicles. Including the forced buyback, lawsuits, and fines from over a dozen countries Volkswagen has paid nearly 30 billion dollars as a result of its deception.

Question 2. Review the Volkswagen *Code of Conduct*. Develop a table that lists all the key provisions from the *Code* that are relevant to the issues of the case. Include columns that compare and summarize reflections about where the Volkswagen scandal disconnected with each of the listed provisions, from both a leadership and engineering aspects.

Section	Provision	Summary	Leadership Disconnect	Engineering Disconnect
2	Responsibility for the Reputation of VWGoA	This provision emphasizes the importance of integrity for all employees. The reasoning is that a poor decision by a single employee can impact the image and reputation of the company.	By instructing the engineers to create technology to cheat on emissions tests, any manager and/or executive who allowed it was partially at fault for the bad reputation gained by the company.	By producing the defeat devices (a move only possible with a lack of integrity) the engineers ended up damaging the reputation of the entire company.
	Management Culture and Collaboration	This provision details how the culture of collaboration created by managers should be an example for employees. It should ensure that rules are not broken and make sure that communication is proper.	The blame for the incident falls on employees that range from executives to engineers. This demonstrated the poor example set by the higher-ups in the company which contributed to engineers creating unethical products.	Engineers broke rules because that was what was expected of them. Rather than the company placing emphasis on safety/ethics, the emphasis was placed on saving money which led to faulty design.
3	Combatting Corruption	The emphasis is on ensuring that all products are of good quality and that employees avoid making poor choices for their own benefit.	Finding a way to reduce the vehicle emissions was more costly than just creating the defeat devices. Executives displayed corruption by choosing money over making a safe choice.	Rather than doing what is right, the engineers helped design faulty products in order to keep their jobs. While it may have been a tough choice, this is still corrupt and unethical.
4	Questions About Possible Conflicts	If there is any doubt about whether a choice is ethical, employees should be able to refer to their supervisor or	The supervisors in charge of the engineers did not provide their staff with unbiased opinions on the ethical choice in this situation.	The engineers did not receive ethical guidance from their supervisors so they were led to create faulty products.

		human resources for guidance. This provision was very similar to another one which contained an ethics hotline.		
6	Reporting	All company records and reports should be accurate.	VW leadership allowed lies to be told in reports regarding their knowledge of the defeat devices.	Engineers did not accurately report the code that they had produced to the distributors of the emissions test.
8	Environmental Protection	VW products should aim to lower their environmental impact.	Leadership was unconcerned with this provision as they approved a product that would release 40x the amount of allowed NOx into the atmosphere.	Engineers initially did not even meet the regulations for vehicle emissions. This shows the lack of care they had for the environmental impact of their product.
10	Implementation	Implementing the "Code" shouldn't disadvantage employees.	Leadership did not enforce the provisions of the code and instructed employees to violate it. This was a lack of implementation on their part.	The engineers were placed in positions where they could either be ethical or do what their bosses told them to do. This is a huge dilemma and cost them all their jobs and reputations.
	Responsibility for Compliance	All employees need to comply with the code. There will be consequences for those who don't.	There was a stark lack of compliance with the code from leadership. Above, there are several examples of the disconnect between the decisions made by leaders and the rules outlined in the code.	The engineers did not face any consequences from the company for making unethical decisions that do not follow the code. There were only consequences once the company was exposed.

Question 3: Based on what you've learned, discuss what you believe were the causes of corporate ethical issues at this scale. Summarize what you believe could be done as preventive measures to avoid future crises of this nature.

1. Unrealistic time constraints stemming from VW's ambition to dominate the US market with their eco-friendly, diesel engine caused VW to ignore ethical concerns and failures to meet market standards.

    Measure: Realization and broadcast to shareholders of failure to meet constraints followed by actual action taken to fix, including possible delays and setbacks. Realization that a small profit loss is better than the massive scandal they would avoid. More effective projections and risk mitigation

2. Commitment to maintaining below budget despite trying to use diesel and eco-friendly properties in the same product. Failing to meet this standard caused the VW board to go against ethical codes and cheat tests.

    Measure: Reform within VW, realization that VW simply did not match market requirements. Time spent developing and fixing would have been very small compared to the billions they had to pay.

3. One-sided commitment to customer satisfaction, disregard to greater causes

   Measure: Maintain a balanced, diverse team who have their own interests and are forced to compromise on the optimal solution for all (in regards to customer, environment, etc.).

4. Corruption within VW America surrounding the evasion of being caught outside of test scenarios and changing test conditions. All responsible board members and staff clearly violated ethical codes stated in the code of conduct.

   Measure: Proper punishments for those responsible. Proper documentation standards for technical decisions with links to those responsible for the decisions such as electronic version/decision management software (GitHub).

5. Lack of consideration for environmental concerns. The VW code of ethics clearly states that they will design automobiles with the desire to protect the environment. Cheating tests designed to protect the environment is the most serious ethical offense the VM committed in this case.

   Measure: Adhere to code of ethics consistently. Dismissing small cases can lead others to think they can cut corners/ Clear references to desire to maintain Per environmental integrity and protection. This goes against that blatantly.

Works Cited

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TEAM 21 PEER AND SELF EVALUATION MATRIX

ASSIGNMENT 1	Charles Richardson	Fred Smith	Katherine Muratti	Matthew Curshman	TASK MGR.(Y/N)
Charles Richardson	100	100	100	100	Y
Fred Smith	100	100	100	100	N
Katherine Muratti	100	100	100	100	N
Matthew Curshman	100	100	100	100	N
AVERAGE	100	100	100	100	