**The Hong Kong Polytechnic University**

**ENG3004 Society and the Engineer**

**Assignment 1 – Question TWO**

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In 2016, Volkswagen (VW) admitted guilty to its diesel emissions scandal and agreed to be fined more than 15 billion euros, followed by compensation requests by stakeholders. This case not only had a devastating financial impact on VW but also bought up a dramatic debate among society about the reputation and social responsibility of the worldwide automobile industry. In the following paragraphs, a throughout discussion will cover the effects of the scandal on VW in terms of professional and social aspects. Further, an analysis of the relationship between the engineers and managers will be mentioned. How VW attempted to regain the lost credit will be the last focus.

**Professionalism:**

VW had been producing automobiles for more than decades. The professional image of a massive car manufacturer had already been planted into the public’s mind. VW has started to advertise clean diesel engines since the ’90s. With the clean diesel engine claim, the sales of VW’s diesel engine cars surged from 2008 to 2015. VW’s professional skills and knowledge of making clean diesel engines were generally approved by the government and the public. The public believed VW is the best diesel car maker who was willing to take professional social responsibility by producing sustainable products. The massive size of the corporate also marked superiority in the car manufacturing industry. The number of employees in the VW corporate is more than 642,000 in 2017 (Pratap, 2018). With a huge number of professional engineers within. The scandal discovered the ‘defeat device’ which was programmed to fake engine exhaust test results. With the admission from VW itself, the professional image that had accumulated for over half a century fractured to pieces instantly. It reflected that VW is not capable of making self-claimed clean diesel engines. It lacked the skills and intelligence that are required to develop an eco-friendly diesel engine. The technology that VW claimed to be successful was a fraud. The carbon dioxide emissions levels of clean diesel engine cars are approximately equal to or even higher than the conventional diesel cars. It damages the professionalism of the whole VW corporate.

The credit bankruptcy was then followed by the loss of reputation and trustworthiness. The scandal showed a low ethical standard within VW. VW values profit over a morally praiseworthy goal. Conceptually, VW put its focus on making profitable cars rather than the sustainable car. To achieve the goal of becoming the best-selling car brand in the US, it intentionally made use of the trust of the consumer. It was done by telling lies which were unethical and even illegal in the market. In short, VW could not maintain social responsibility which a company shall engage in competition without deception or fraud.

**Social disturbance:**

Human societies are striving for progress and sustainability. Among them, the development of clean power plants is one of the focuses. When the VW clean diesel cars were released, people were excited to see that the high carbon emissions diesel car could offer great mileage and low pollution. One of the VW car models in the Guinness World Record book marked down the incredible data which the car covered 8233.5 miles while burning only 101.43 gallons of diesel (Nagy, 2015). This engineering product changed the travel attitudes of the people. Society recognized this as a huge advancement of technology where the performance and the pollution of a power plant were well balanced. It contributed to society positively by providing a convenient travel option while maintaining low car emissions. In fact, it boosted the sales of the diesel car. Encouraged the use of high-pollution diesel cars. Bringing humans much further away from achieving sustainable goals. Eventually, leading society's advancement to progress downhill.

This scandal not only created social disappointment but also hindered potential deaths in the United States and Europe. More than 11 million fake clean cars had been sold worldwide, including 8 million in Europe. It is crystal clear that pollutants from diesel engines such as carbon dioxide will pollute the environment. Moreover, pollutants like excess particulate matter (PM) and nitrogen oxide (NO­­­2­) will harm humans physically, triggering diseases such as lung cancer, asthma, and hyperventilation. The total pollution was enormous that will be leading to 60 deaths in the United States and 1200 deaths in Europe suggested by (Barrett, et al., 2015). This indirectly murdering by VW's fake clean diesel cars bought a huge impact on its reputation in the social dimension and also revealed its ethical problem.

To society, the feasibility of clean diesel cars had become questionable. VW cheated to pass the emissions test using a built-in computer programme. That raises the question of whether other well-known car manufacturers utilize the same or alike methods to fraud the emission test. It breaks the credit for all the car producers. The general public will hardly believe the future advancement of technology about diesel cars with doubt and worry inside.

**The dilemma for engineers:**

VW, as a main Europe car manufacturer, its engineers should have held the identity of “  
European Chartered engineers”. They are members of national Chambers and legally authorized according to German legislation. The European Council of Engineers Chambers (ECEC) issued ‘Code of Conduct (CoC) for European Chartered Engineers’ (ECEC, 2008). The Code of Conduct suggested that engineers shall bear the responsibility for the quality of life, public and consumer interest. There are a few points that are worth taking note of in this case for VW’s engineers. Engineers developed a cheating programme to deceive testing authorities and the government. As stated in ‘Article 2: general Principles’, European Chartered Engineers must respect and apply all European and national laws. This point was violated by those VW engineers who made the ‘defeat device’.

Apart from the law violation, engineers were being set into dilemma. As mentioned by Jeff Janus, a former vice of president Daimier-Benz, the internal culture of VW from top to bottom was extremely harsh. The former Chief Executive Officer of VW Martin Vindico had a huge ambition of being the best seller in Europe and thus pressure the employee especially engineers to develop an up-to-standard diesel engine car. Engineers discovered the defect in the diesel engine but the deadline was close. They had only two choices. One, obey the CoC, report the problem of the diesel engine and cease the production. As stated in CoC Article 2 no 3, European Chartered Engineers shall be aware of their responsibility towards the general public and the environment. The result will be simply the loss of their job at VW. Otherwise, help VW cheat in the emission test and save their job. This culture discourages engineers to report and suggest safety or quality as it will risk their careers. From the engineer’s point of view, it was hard to balance between obeying the CoC and completing the command from the management.

**VW’s transformation:**

VW's management structure was reformed after the scandal. The former CEO Martin Vinidco resigned, replaced by Mattias Muller. The CEO took action to regain the reputation of VW and save the whole company from this crisis. VW spent 6.7 billion euros to recall 11 million cars worldwide. This resulted in a 2.5 billion loss in the next quarter. VW also initiated an internal enquiry to reconstruct an open channel culture. Later on, VW changed its marketing strategy from making diesel cars to petrol or even better electric cars. These approaches taken by VW gained positive reflections from the public. Despite the diesel emissions scandal, VW became the world’s no 1 car maker by selling 10.3 million more than the biggest competitor Toyota (Topham, 2017).

The attitude of VW successfully saves the reputation of the company. Comparing another similar case: the Mitsubishi Electric scandal, Mitsubishi Electric kept rolling into being accused of the faking test result and submitting the wrong sample (Shimbun, 2022). Mitsubishi Electric did not attempt to fix the internal problem but kept making similar mistakes. It shows a lack of sincerity in tackling the ongoing quality problem.

**Conclusion:**

Volkswagen Emission Scandal bought a huge impact on its own professional and social dimensions. By digging into the case, it can be observed that the source of the event originate from a deeper cultural aspect. The Code of Conduct shall be followed not only by the engineers but shall also be adopted by the management layer. Ensuring the company walks on an ethical track will always be the key to success.

# References

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